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MENTAL ARITHMETIC,

ON THE

INDUCTIVE PLAN;

FOR BEGINNERS.

By BENJAMIN GREENLEAF, A. M.

BOSTON:

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GREENLEAF'S MENTAL ARITHMETIC.

MENTAL ARITHMETIC,

UPON THE

INDUCTIVE PLAN;

FOR BEGINNERS.

BY BENJAMIN GREENLEAF, A. M.,

AUTHOR OF THE "NATIONAL ARITHMETIC," ETC.

BOSTON:

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PREFACE.

THE first edition of this little work, having had a rapid and extensive sale, the author is now induced to revise it and make a few additions.

Although not so extensive as some works on the same subject, it is yet believed, that the present treatise is sufficient for the pupil, previous to the use of the slate.

The object of this work is to furnish a regular system of Mental Arithmetic, and an effort has been made to frame questions, that are simple and easy to be understood, and to advance to more difficult ones no faster, than the pupil is supposed to be prepared to understand and solve them.

Should this little treatise receive as much favor from the public as the other works of the author, he will feel himself amply compensated for his labor in the elementary department of this most essential branch of common education.

Bradford Seminary, Oct. 30, 1845. B. GREENLEAF.

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[*Copy of a letter from Levi Adams, Northampton, Mass., to the Publisher.*]

After a careful examination and thorough trial of "Greenleaf's Series of Arithmetics," I am prepared to say, that in my opinion they are better calculated than any other system, with which I am acquainted, to lead the scholar by easy and natural steps, from the plainest to the most difficult parts of the science. After having tried the experiment, I am decidedly of the opinion that more accomplished and thorough Arithmeticians may be made by using Greenleaf's Series, than by using any other books now before the public. Very respectfully,

(Signed) L. ADAMS, *Principal of Boys' High School.*

Northampton, Sept 9, 1845.

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MENTAL ARITHMETIC.

SECTION I.

1. John had two cents, and James gave him another; how many cents then had John?

Two and one are how many?

2. Samuel had two nuts, and John gave him two more; how many nuts then had Samuel?

Two and two are how many?

3. Thomas gave two biscuits to a poor man, and James gave him three; how many biscuits then had the poor man?

Three and two are how many?

4. One boy has five sheets of paper, and another boy has four sheets; how many have both?

Five and four are how many?

5. John had five cents, and some person gave him two more; how many did he then have?

Five and two are how many?

6. John had six cents, and Luke gave him two more; how many did he then have?

Six and two are how many?

7. A merchant bought at one time four barrels of flour, and at another time he bought five barrels; how many did he then have?

Four and five are how many?

8. Sold at one time eight pounds of sugar, and at another time, one pound; how many pounds did I sell?

Eight and one are how many?

9. Gave seven cents for oranges, and three cents for figs; what was paid for both?

Seven and three are how many?

10. Gave six cents for paper, and three cents for quills; what did I give for both?

Six and three are how many?

11. Bought a barrel of flour for five dollars, and a barrel of apples for two dollars; what was the cost of both?

How many are five and two?

12. Gave four dollars for a coat, and two dollars for a vest; what was given for both?

How many are four and two?

13. John had six dollars, and Luke gave him two more; how many dollars then had John?

How many are six and two?

14. Gave seven dollars for a load of wood, and one dollar for a bushel of corn; what was given for both?

How many are seven and one?

15. Sold a quantity of fruit for eight dollars, and received two dollars for a keg of molasses; what was received for both?

How many are eight and two?

16. Paid Johnson seven dollars for a load of hay, and Kimball three dollars for salt; how many dollars were paid for the hay and salt?

How many are seven and three?

17. Paid Howe eight dollars for broadcloth, and one dollar for an axe; what was the sum paid?

How many are eight and one?

18. Gave seven dollars to the Benevolent Society, and four dollars to the Temperance Society; how much was given to both societies?

Seven and four are how many?

19. My Dictionary cost five dollars, and my Reader three dollars; what was given for both?

How many are five and three?

20. Paid seven dollars for a bar of iron, and five dollars for three bars of steel; what was given for both?

How many are seven and five?

SECTION II.

The following table will exhibit the manner in which numbers are written in Arabic and Roman characters.

	Printed Arabic Figures.	Written Figures.	Roman.
One is written	1	1	I.
Two is written	2	2	II.
Three,	3	3	III.
Four,	4	4	IV.
Five,	5	5	V.
Six,	6	6	VI.
Seven,	7	7	VII.
Eight,	8	8	VIII.
Nine,	9	9	IX.
Ten,	10	10	X.
Eleven,	11	11	XI.
Twelve,	12	12	XII.
Thirteen,	13	13	XIII.
Fourteen,	14	14	XIV.
Fifteen,	15	15	XV.
Sixteen,	16	16	XVI.
Seventeen,	17	17	XVII.
Eighteen,	18	18	XVIII.
Nineteen,	19	19	XIX.
Twenty,	20	20	XX.

Twenty-one,	21	21	XXI.
Twenty-two,	22	22	XXII.
Twenty-three,	23	23	XXIII.
Twenty-four,	24	24	XXIV.
Twenty-five,	25	25	XXV.
Twenty-six,	26	26	XXVI.
Twenty-seven,	27	27	XXVII.
Twenty-eight,	28	28	XXVIII.
Twenty-nine,	29	29	XXIX.
Thirty,	30	30	XXX.
Thirty-one, &c.	31	31	XXXI.
Forty,	40	40	XL.
Forty-one, &c.	41	41	XLI.
Fifty,	50	50	L.
Fifty-one, &c.	51	60	LI.
Sixty,	60	51	LX.
Sixty-one, &c.	61	61	LXI.
Seventy,	70	70	LXX.
Seventy-one, &c.	71	71	LXXI.
Eighty,	80	80	LXXX.
Eighty-one, &c.	81	81	LXXXI.
Ninety,	90	90	XC.
Ninety-one, &c.	91	91	XCI.
One hundred,	100	100	C.

SECTION III.

Addition Table.

2	and	0	are	2	3	and	0	are	3	4	and	0	are	4
2	and	1	are	3	3	and	1	are	4	4	and	1	are	5
2	and	2	are	4	3	and	2	are	5	4	and	2	are	6
2	and	3	are	5	3	and	3	are	6	4	and	3	are	7
2	and	4	are	6	3	and	4	are	7	4	and	4	are	8
2	and	5	are	7	3	and	5	are	8	4	and	5	are	9
2	and	6	are	8	3	and	6	are	9	4	and	6	are	10
2	and	7	are	9	3	and	7	are	10	4	and	7	are	11
2	and	8	are	10	3	and	8	are	11	4	and	8	are	12
2	and	9	are	11	3	and	9	are	12	4	and	9	are	13
2	and	10	are	12	3	and	10	are	13	4	and	10	are	14
2	and	11	are	13	3	and	11	are	14	4	and	11	are	15
2	and	12	are	14	3	and	12	are	15	4	and	12	are	16
5	and	0	are	5	6	and	0	are	6	7	and	0	are	7
5	and	1	are	6	6	and	1	are	7	7	and	1	are	8
5	and	2	are	7	6	and	2	are	8	7	and	2	are	9
5	and	3	are	8	6	and	3	are	9	7	and	3	are	10
5	and	4	are	9	6	and	4	are	10	7	and	4	are	11
5	and	5	are	10	6	and	5	are	11	7	and	5	are	12
5	and	6	are	11	6	and	6	are	12	7	and	6	are	13
5	and	7	are	12	6	and	7	are	13	7	and	7	are	14
5	and	8	are	13	6	and	8	are	14	7	and	8	are	15
5	and	9	are	14	6	and	9	are	15	7	and	9	are	16
5	and	10	are	15	6	and	10	are	16	7	and	10	are	17
5	and	11	are	16	6	and	11	are	17	7	and	11	are	18
5	and	12	are	17	6	and	12	are	18	7	and	12	are	19
8	and	0	are	8	8	and	5	are	13	8	and	10	are	18
8	and	1	are	9	8	and	6	are	14	8	and	11	are	19
8	and	2	are	10	8	and	7	are	15	8	and	12	are	20
8	and	3	are	11	8	and	8	are	16	8	and	13	are	21
8	and	4	are	12	8	and	9	are	17	8	and	14	are	22

9	and	0	are	9	10	and	0	are	10	11	and	0	are	11
9	and	1	are	10	10	and	1	are	11	11	and	1	are	12
9	and	2	are	11	10	and	2	are	12	11	and	2	are	13
9	and	3	are	12	10	and	3	are	13	11	and	3	are	14
9	and	4	are	13	10	and	4	are	14	11	and	4	are	15
9	and	5	are	14	10	and	5	are	15	11	and	5	are	16
9	and	6	are	15	10	and	6	are	16	11	and	6	are	17
9	and	7	are	16	10	and	7	are	17	11	and	7	are	18
9	and	8	are	17	10	and	8	are	18	11	and	8	are	19
9	and	9	are	18	10	and	9	are	19	11	and	9	are	20
9	and	10	are	19	10	and	10	are	20	11	and	10	are	21
9	and	11	are	20	10	and	11	are	21	11	and	11	are	22
9	and	12	are	21	10	and	12	are	22	11	and	12	are	23
12	and	0	are	12	12	and	5	are	17	12	and	10	are	22
12	and	1	are	13	12	and	6	are	18	12	and	11	are	23
12	and	2	are	14	12	and	7	are	19	12	and	12	are	24
12	and	3	are	15	12	and	8	are	20	12	and	13	are	25
12	and	4	are	16	12	and	9	are	21	12	and	14	are	26

SECTION IV.

1. 1 and 1 are how many?
2. 1 and 3 are how many?
3. 1 and 5 are how many?
4. 1 and 7 are how many?
5. 1 and 9 are how many?
6. 1 and 11 are how many?
7. 1 and 2 are how many?
8. 1 and 4 are how many?
9. 1 and 6 are how many?
10. 1 and 8 are how many?
11. 1 and 10 are how many?
12. 2 and 1 are how many?
13. 2 and 3 are how many?
14. 2 and 5 are how many?

15. 2 and 7 are how many?
16. 2 and 9 are how many?
17. 2 and 11 are how many?
18. 2 and 2 are how many?
19. 2 and 4 are how many?
20. 2 and 6 are how many?
21. 2 and 8 are how many?
22. 2 and 10 are how many?
23. 3 and 1 are how many?
24. 3 and 3 are how many?
25. 3 and 5 are how many?
26. 3 and 7 are how many?
27. 3 and 9 are how many?
28. 3 and 11 are how many?
29. 3 and 2 are how many?
30. 3 and 4 are how many?
31. 3 and 6 are how many?
32. 3 and 8 are how many?
33. 3 and 10 are how many?
34. 4 and 1 are how many?
35. 4 and 3 are how many?
36. 4 and 5 are how many?
37. 4 and 7 are how many?
38. 4 and 9 are how many?
39. 4 and 2 are how many?
40. 4 and 4 are how many?
41. 4 and 6 are how many?
42. 4 and 8 are how many?
43. 4 and 10 are how many?
44. 5 and 1 are how many?
45. 5 and 3 are how many?
46. 5 and 5 are how many?
47. 5 and 7 are how many?
48. 5 and 9 are how many?
49. 5 and 2 are how many?
50. 5 and 4 are how many?
51. 5 and 6 are how many?

52. 5 and 8 are how many?
53. 5 and 10 are how many?
54. 6 and 1 are how many?
55. 6 and 3 are how many?
56. 6 and 5 are how many?
57. 6 and 7 are how many?
58. 6 and 9 are how many?
59. 6 and 2 are how many?
60. 6 and 4 are how many?
61. 6 and 6 are how many?
62. 6 and 8 are how many?
63. 6 and 10 are how many?
64. 7 and 1 are how many?
65. 7 and 3 are how many?
66. 7 and 5 are how many?
67. 7 and 7 are how many?
68. 7 and 9 are how many?
69. 7 and 2 are how many?
70. 7 and 4 are how many?
71. 7 and 6 are how many?
72. 7 and 8 are how many?
73. 7 and 10 are how many?
74. 8 and 1 are how many?
75. 8 and 3 are how many?
76. 8 and 5 are how many?
77. 8 and 7 are how many?
78. 8 and 9 are how many?
79. 8 and 2 are how many?
80. 8 and 4 are how many?
81. 8 and 6 are how many?
82. 8 and 8 are how many?
83. 8 and 10 are how many?
84. 9 and 1 are how many?
85. 9 and 3 are how many?
86. 9 and 5 are how many?
87. 9 and 7 are how many?
88. 9 and 9 are how many?

89. 9 and 2 are how many?
90. 9 and 4 are how many?
91. 9 and 6 are how many?
92. 9 and 8 are how many?
93. 9 and 10 are how many?
94. 10 and 1 are how many?
95. 10 and 3 are how many?
96. 10 and 5 are how many?
97. 10 and 7 are how many?
98. 10 and 9 are how many?
99. 10 and 2 are how many?
100. 10 and 4 are how many?
101. 10 and 6 are how many?
102. 10 and 8 are how many?
103. 10 and 10 are how many?

SECTION V.

1. Gave 3 cents to James, 4 cents to Thomas, and 2 cents to Jane; how many cents did they all receive?

2. Gave 7 nuts to one boy, 4 nuts to another, and 7 nuts to another; how many nuts were given to the three boys?

3. John has 3 marbles, Samuel has 5 marbles, and Jacob has 4 marbles; how many marbles have they all? How many has Samuel more than John?

4. Jane has 9 cents, Mary 8 cents, and Lydia 7 cents; how many cents have they all? How many more cents has Jane than Lydia?

5. Bought a horse for 20 dollars, and paid at one time 5 dollars, and at another time 8 dollars; how many dollars remain due?

6. Gave 12 cents for a Testament, 10 cents for paper, and 8 cents for an inkstand; what did I pay for the whole?

7. A man sets out from Bradford to travel to Bos-

ton, the distance being 30 miles; the first day he travels 7 miles, the second day he travels 9 miles, and the third day he travels 4 miles; how far then has he to travel before he arrives at Boston?

8. Bought a pound of sugar for 9 cents, a pound of raisins for 8 cents, and an ounce of nutmegs for 6 cents; what was the whole cost?

9. John had 20 marbles; he gave 4 to Samuel, 3 to Luke, and 5 to Matthew; how many had he left?

10. A lady bought some pins for 12 cents, some thread for 11 cents, some riband for 6 cents, and some cotton for 9 cents; what was the cost of all the articles?

11. Bought a barrel of flour for 6 dollars, a barrel of apples for 3 dollars, and a keg of molasses for 8 dollars; what was the cost of the whole?

12. John gave 3 cents for paper, and 7 cents for quills; what did he give for both?

13. Hannah paid 4 cents for candy, and 5 cents for cherries; what did she pay for both?

14. Gave 6 nuts to James, and 4 nuts to Samuel; how many did both receive?

15. If I pay 6 dollars for a barrel of flour, and 3 dollars for a good cheese, what is the cost of both?

16. A boy gave to one of his companions 2 peaches; to another 6; and to another 4; how many did he give them all?

17. James had 5 pears, and his brother gave him 4 more; how many pears then had James?

18. If your father give you 10 cents, and your sister 5 cents, how many cents would you then have?

19. A boy spent 4 cents for confectionary, 3 cents for a ball, and 6 cents for a top; how many cents did he spend for the whole?

20. A man bought a firkin of butter for 7 dollars, and a keg of molasses for 8 dollars; what was the cost of both.

21. Frank put 4 cents into his money-box the first week, 6 cents the second week, and 9 cents the third week; how many cents were in the box at the end of three weeks?

22. If a man give 6 dollars for a sleigh, 3 dollars for a harness, and 5 dollars for a saddle, how much would he give for all?

23. A lady bought some silk for 7 dollars, a muff for 4 dollars, a pair of gloves for 1 dollar, a shawl for 10 dollars, and a bonnet for 6 dollars; how many dollars did she pay away?

24. James is 4 years old, Edward 6, Charles 8, and Ann 10 years old; what is the sum of their ages?

25. A man bought a horse for 12 dollars, a cow for 9 dollars, a sheep for 5 dollars, and a pig for 2 dollars; what was the whole cost?

SECTION VI.

1. A man bought a cow for 20 dollars, a load of wood for 5 dollars, and a spade for 1 dollar; what was the cost of the whole?

2. A lady purchased some silk for 25 dollars, and a shawl for 5 dollars; what did she give for both?

3. Bought 30 bales of cotton, 6 bags of rice, and 2 boxes of sugar; what was the number of articles purchased?

4. A gentleman gave 46 dollars for a watch, 7 dollars for a chain, and 2 dollars for a key; what did he pay for the whole?

5. If a horse is worth 50 dollars, a saddle 9 dollars, and a whip 1 dollar, what is the value of the whole?

6. Gave 75 dollars for a chaise, 6 dollars for a harness, and 2 dollars for a buffalo-robe; what did the whole cost?

7. A lad found 72 chestnuts under one tree, 10 under another, and 8 under another; how many did he find in all?

8. A shoe-dealer sold at one time 90 cases of shoes, at another time 10, and at another only 4; how many did he sell in all?

9. New York has 57 counties, Delaware has 3, and Rhode Island 3; how many have they all?

10. A man gave 64 dollars for a piece of land; it cost him 10 dollars to fence it, and 2 dollars to have it ploughed; what was the whole cost?

11. Three men engage in trade; the first put in 100 dollars, the second 20, and the third 10 dollars; how much did they all put in?

12. Charles gave 75 cents for an Arithmetic, 10 cents for a Grammar, 8 cents for a writing-book, and 2 cents for a pencil; what did he give for the whole?

13. Edward bought a vest for 98 cents, some buttons for 12 cents, and some thread for 6 cents; what was the whole cost?

14. How many are 4 and 6 and 3? 4 and 7 and 4? 4 and 8 and 5? 4 and 9 and 3? 4 and 10 and 1? 4 and 4 and 9? 4 and 6 and 8? 4 and 3 and 9?

15. How many are 4 and 5 and 5? 3 and 9 and 6? 3 and 8 and 8? 4 and 9 and 1? 4 and 1 and 9? 5 and 5 and 4? 5 and 4 and 7? 7 and 6 and 1?

16. How many are 7 and 1 and 7? 7 and 4 and 5? 6 and 1 and 9? 6 and 3 and 7? 7 and 5 and 4? 7 and 7 and 4? 7 and 8 and 2? 6 and 7 and 9? 9 and 9 and 1? 7 and 7 and 7? 4 and 7 and 9? 2 and 8 and 4? 7 and 1 and 9?

17. How many are 9 and 1 and 8? 9 and 3 and 9? 7 and 8 and 8? 4 and 9 and 9? 7 and 7 and 3? 9 and 8 and 9? 9 and 9 and 9? 9 and 7 and 8? 6 and 8 and 4? 5 and 7 and 9? 7 and 4 and 2? 3 and 9 and 5? 2 and 6 and 7? 8 and 1 and 4? 5 and 8 and 5? 3 and 9 and 6? 9 and 4 and 7?

SECTION VII.

Subtraction Table.

1	from	1	leaves	0	2	from	2	leaves	0	3	from	3	leaves	0
1	from	2	leaves	1	2	from	3	leaves	1	3	from	4	leaves	1
1	from	3	leaves	2	2	from	4	leaves	2	3	from	5	leaves	2
1	from	4	leaves	3	2	from	5	leaves	3	3	from	6	leaves	3
1	from	5	leaves	4	2	from	6	leaves	4	3	from	7	leaves	4
1	from	6	leaves	5	2	from	7	leaves	5	3	from	8	leaves	5
1	from	7	leaves	6	2	from	8	leaves	6	3	from	9	leaves	6
1	from	8	leaves	7	2	from	9	leaves	7	3	from	10	leaves	7
1	from	9	leaves	8	2	from	10	leaves	8	3	from	11	leaves	8
1	from	10	leaves	9	2	from	11	leaves	9	3	from	12	leaves	9
1	from	11	leaves	10	2	from	12	leaves	10	3	from	13	leaves	10
1	from	12	leaves	11	2	from	13	leaves	11	3	from	14	leaves	11
1	from	13	leaves	12	2	from	14	leaves	12	3	from	15	leaves	12
4	from	4	leaves	0	5	from	5	leaves	0	6	from	6	leaves	0
4	from	5	leaves	1	5	from	6	leaves	1	6	from	7	leaves	1
4	from	6	leaves	2	5	from	7	leaves	2	6	from	8	leaves	2
4	from	7	leaves	3	5	from	8	leaves	3	6	from	9	leaves	3
4	from	8	leaves	4	5	from	9	leaves	4	6	from	10	leaves	4
4	from	9	leaves	5	5	from	10	leaves	5	6	from	11	leaves	5
4	from	10	leaves	6	5	from	11	leaves	6	6	from	12	leaves	6
4	from	11	leaves	7	5	from	12	leaves	7	6	from	13	leaves	7
4	from	12	leaves	8	5	from	13	leaves	8	6	from	14	leaves	8
4	from	13	leaves	9	5	from	14	leaves	9	6	from	15	leaves	9
4	from	14	leaves	10	5	from	15	leaves	10	6	from	16	leaves	10
4	from	15	leaves	11	5	from	16	leaves	11	6	from	17	leaves	11
4	from	16	leaves	12	5	from	17	leaves	12	6	from	18	leaves	12
7	from	7	leaves	0	7	from	12	leaves	5	7	from	17	leaves	10
7	from	8	leaves	1	7	from	13	leaves	6	7	from	18	leaves	11
7	from	9	leaves	2	7	from	14	leaves	7	7	from	19	leaves	12
7	from	10	leaves	3	7	from	15	leaves	8	7	from	20	leaves	13
7	from	11	leaves	4	7	from	16	leaves	9	7	from	21	leaves	14

8	from	8	leaves	0	9	from	9	leaves	0	10	from	10	leaves	0
8	from	9	leaves	1	9	from	10	leaves	1	10	from	11	leaves	1
8	from	10	leaves	2	9	from	11	leaves	2	10	from	12	leaves	2
8	from	11	leaves	3	9	from	12	leaves	3	10	from	13	leaves	3
8	from	12	leaves	4	9	from	13	leaves	4	10	from	14	leaves	4
8	from	13	leaves	5	9	from	14	leaves	5	10	from	15	leaves	5
8	from	14	leaves	6	9	from	15	leaves	6	10	from	16	leaves	6
8	from	15	leaves	7	9	from	16	leaves	7	10	from	17	leaves	7
8	from	16	leaves	8	9	from	17	leaves	8	10	from	18	leaves	8
8	from	17	leaves	9	9	from	18	leaves	9	10	from	19	leaves	9
8	from	18	leaves	10	9	from	19	leaves	10	10	from	20	leaves	10
8	from	19	leaves	11	9	from	20	leaves	11	10	from	21	leaves	11
8	from	20	leaves	12	9	from	21	leaves	12	10	from	22	leaves	12
11	from	11	leaves	0	11	from	20	leaves	9	12	from	16	leaves	4
11	from	12	leaves	1	11	from	21	leaves	10	12	from	17	leaves	5
11	from	13	leaves	2	11	from	22	leaves	11	12	from	18	leaves	6
11	from	14	leaves	3	11	from	23	leaves	12	12	from	19	leaves	7
11	from	15	leaves	4						12	from	20	leaves	8
11	from	16	leaves	5	12	from	12	leaves	0	12	from	21	leaves	9
11	from	17	leaves	6	12	from	13	leaves	1	12	from	22	leaves	10
11	from	18	leaves	7	12	from	14	leaves	2	12	from	23	leaves	11
11	from	19	leaves	8	12	from	15	leaves	3	12	from	24	leaves	12

SECTION VIII.

1. A boy has three nuts in his right hand and two nuts in his left hand; how many more has he in his right hand than in his left? How many has he in both?

2. James gave five cents to Lydia, and three cents to Jane; how many more did he give to Lydia than to Jane? How many did he give both?

3. Gave 6 dollars for a barrel of flour, and 2 dollars for a bushel of quinces; how much more did the flour cost than the quinces? What was the cost of both?

4. Gave 6 cents for a book, and 3 cents for plums; how much more was given for the book than the plums? What was the cost of both?

5. John gave 8 cents for a writing-book, and two cents for a ruler; what was the cost of both? How much more was given for the book than the ruler?

6. Samuel had 8 cents, and he gave 6 of them to his brother; how many had he left?

7. Thomas had 10 dollars; he lost five dollars; how many had he left?

8. If you had 7 cents in one hand and 4 in the other, how many more would you have in one hand than in the other? How many in both?

9. Paid 8 dollars for a hundred-weight of sugar, and 3 dollars for a cheese; how much more did the sugar cost than the cheese? What was the cost of both?

10. A butcher has 7 sheep and 6 lambs; how many more sheep has he than lambs? How many of both?

11. Gave 9 cents for cherries, and two cents for apples; how much more was given for the cherries than for the apples? What was the cost of both?

12. Received 10 dollars for a quantity of wheat, but having lost 4 dollars, how many remain?

13. Gave 7 dollars to the Benevolent Society, and 5 dollars to the Seamen's Aid Society; how much was given to both societies? How much more was given to the former than the latter?

14. Paid 6 dollars for a pair of boots, and 2 dollars for a pair of shoes; how much more was paid for the boots than the shoes? What was paid for both?

SECTION IX.

1. Gave 3 cents for an orange, and 2 cents for an

apple; how much more did the orange cost than the apple?

2. Paid 5 dollars for a barrel of flour, and 2 dollars for a barrel of apples; how much more was paid for the flour than the apples?

3. Samuel has 6 nuts, and Thomas has 4 nuts; how many more has Samuel than Thomas?

4. Sold a quantity of sugar for 7 dollars, and received in payment a barrel of flour at 5 dollars; how many dollars remain due?

5. Gave 10 dollars for a load of hay, and 8 dollars for a cow; how much more was given for the hay than for the cow? What was the cost of both?

6. Paid 7 dollars for a plank, and 2 dollars for an axe; how much more was paid for the plank than for the axe? What was the cost of both?

7. Gave 7 dollars for a pair of boots, and 2 dollars for a hat; how much more did the boots cost than the hat? How much was given for both?

8. Sold a horse for 10 dollars, and received in payment two yards of broadcloth at 2 dollars a yard; how much remains due?

9. Gave 12 cents for a top, and 3 cents for marbles; how much more was paid for the top than for the marbles? How much was paid for both?

10. Bought a quantity of sugar for 9 dollars, and sold it for 12 dollars; what did I gain?

11. Bought a barrel of flour for 7 dollars, and sold it for 4 dollars; what did I lose?

12. If you had borrowed 12 cents, and had paid 8 cents, how many would you still owe?

13. Borrowed 9 dollars, and paid 3 dollars; how many are still due?

14. Bought a cow for 15 dollars, and paid 10 dollars of it; how many dollars remain unpaid?

15. Bought a horse for 18 dollars, and sold him for 20 dollars; what was gained?

16. James has 13 marbles; if he lose 5 of them, how many will he have left?

17. John found 13 cents, and Samuel found 8 cents; how many more cents did John find than Samuel?

18. John Smith agreed to labor for me fifteen days; but, having left me at the end of 8 days, how many days' labor remains due me?

19. Samuel Smith owed me 20 dollars; he gave me a ten dollar bill; how many dollars remain due?

20. Gave 11 dollars to Emily, and 7 dollars to Betsey; how many more dollars were given to Emily than to Betsey? How many dollars were given to both?

21. Gave Lydia 17 dollars, and she lost 8 dollars; how many had she left?

22. Paid 20 cents for a penknife, and 12 cents for an inkstand; how much more did the penknife cost than the inkstand? What was the cost of both?

23. Gave 10 cents for apples, and 12 cents for peaches; what was the cost of both; and how much more was given for the peaches than the apples?

24. John is 17 years old, and Sally is 9 years old; what is the difference of their ages? What is the sum of their ages?

SECTION X.

1. James recites 12 perfect lessons in a week, and John only 4; how many more does James recite than John? 4 from 12 leaves how many?

2. Lucy put 13 chestnuts into the embers to roast, but 5 of them were burned up; how many were saved? 13 less 5 are how many?

3. Rufus reads 14 pages every day, but Frank reads only 7; how many more does Rufus read than Frank? 14 less 7 are how many?

4. A had 15 barrels of flour; at one time he sold 2 barrels, at another time 4, and at another time 6; how many barrels did he sell in all? How many had he left?

5. A farmer had 20 hens, but a fox carried off 12 of them; how many remained? 20 less 12 are how many?

6. Augustus had 24 apples; he gave 4 to one of his companions, 3 to another, and 5 to another; how many had he left?

7. Sarah had 20 cherries; she gave 4 to Mary, 6 to Jane, and 5 to Frank; how many had she left?

8. Two men start from Boston, and travel different ways; one travels at the rate of 3 miles an hour, the other at the rate of 5 miles an hour; how far are they apart at the end of one hour? How far at the end of 2 hours? 4 hours? 6 hours? 8 hours? 10 hours?

9. Two men, A and B, start from Lowell, and travel the same way; A travels at the rate of 4 miles an hour, and B at the rate of 9 miles an hour; how far apart will they be at the end of one hour? How far at the end of 2 hours? 4 hours? 6 hours? 7 hours?

10. Six less two are how many?
11. Five less four are how many?
12. Three less two are how many?
13. Seven less three are how many?
14. Nine less four are how many?
15. Six less one are how many?
16. Four less four are how many?
17. Eight less five are how many?
18. Five less two are how many?
19. Seven less six are how many?
20. Nine less four are how many?
21. Eight less five are how many?
22. Ten less six are how many?
23. Twelve less nine are how many?

24. Eleven less seven are how many?
25. Fifteen less eight are how many?
26. Thirteen less six are how many?
27. Sixteen less ten are how many?
28. Fourteen less nine are how many?
29. Seventeen less six are how many?
30. Fifteen less eight are how many?
31. Eighteen less four are how many?
32. Sixteen less twelve are how many?
33. Nineteen less eleven are how many?
34. Fourteen less six are how many?
35. Eleven less four are how many?
36. Sixteen less nine are how many?
37. Nineteen less five are how many?
38. Fifteen less seven are how many?
39. Seventeen less four are how many?
40. Eighteen less eight are how many?
41. Twenty less nine are how many?

SECTION XI.

MULTIPLICATION TABLE.

2	times	0	are	0	3	times	0	are	0	4	times	0	are	0
2	times	1	are	2	3	times	1	are	3	4	times	1	are	4
2	times	2	are	4	3	times	2	are	6	4	times	2	are	8
2	times	3	are	6	3	times	3	are	9	4	times	3	are	12
2	times	4	are	8	3	times	4	are	12	4	times	4	are	16
2	times	5	are	10	3	times	5	are	15	4	times	5	are	20
2	times	6	are	12	3	times	6	are	18	4	times	6	are	24
2	times	7	are	14	3	times	7	are	21	4	times	7	are	28
2	times	8	are	16	3	times	8	are	24	4	times	8	are	32
2	times	9	are	18	3	times	9	are	27	4	times	9	are	36
2	times	10	are	20	3	times	10	are	30	4	times	10	are	40
2	times	11	are	22	3	times	11	are	33	4	times	11	are	44
2	times	12	are	24	3	times	12	are	36	4	times	12	are	48

5	times	0	are	0	6	times	0	are	0	7	times	0	are	0
5	times	1	are	5	6	times	1	are	6	7	times	1	are	7
5	times	2	are	10	6	times	2	are	12	7	times	2	are	14
5	times	3	are	15	6	times	3	are	18	7	times	3	are	21
5	times	4	are	20	6	times	4	are	24	7	times	4	are	28
5	times	5	are	25	6	times	5	are	30	7	times	5	are	35
5	times	6	are	30	6	times	6	are	36	7	times	6	are	42
5	times	7	are	35	6	times	7	are	42	7	times	7	are	49
5	times	8	are	40	6	times	8	are	48	7	times	8	are	56
5	times	9	are	45	6	times	9	are	54	7	times	9	are	63
5	times	10	are	50	6	times	10	are	60	7	times	10	are	70
5	times	11	are	55	6	times	11	are	66	7	times	11	are	77
5	times	12	are	60	6	times	12	are	72	7	times	12	are	84

8	times	0	are	0	9	times	0	are	0	10	times	0	are	0
8	times	1	are	8	9	times	1	are	9	10	times	1	are	10
8	times	2	are	16	9	times	2	are	18	10	times	2	are	20
8	times	3	are	24	9	times	3	are	27	10	times	3	are	30
8	times	4	are	32	9	times	4	are	36	10	times	4	are	40
8	times	5	are	40	9	times	5	are	45	10	times	5	are	50
8	times	6	are	48	9	times	6	are	54	10	times	6	are	60
8	times	7	are	56	9	times	7	are	63	10	times	7	are	70
8	times	8	are	64	9	times	8	are	72	10	times	8	are	80
8	times	9	are	72	9	times	9	are	81	10	times	9	are	90
8	times	10	are	80	9	times	10	are	90	10	times	10	are	100
8	times	11	are	88	9	times	11	are	99	10	times	11	are	110
8	times	12	are	96	9	times	12	are	108	10	times	12	are	120

11	times	0	are	0	11	times	9	are	99	12	times	4	are	48
11	times	1	are	11	11	times	10	are	110	12	times	5	are	60
11	times	2	are	22	11	times	11	are	121	12	times	6	are	72
11	times	3	are	33	11	times	12	are	132	12	times	7	are	
11	times	4	are	44						12	times	8	are	
11	times	5	are	55	12	times	0	are	0	12	times	9	are	1
11	times	6	are	66	12	times	1	are	12	12	times	10	are	1
11	times	7	are	77	12	times	2	are	24	12	times	11	are	
11	times	8	are	88	12	times	3	are	36	12	times	12		

SECTION XII.

1. What cost 3 apples, at 2 cents apiece? If one apple cost 2 cents, 3 apples will cost 3 times as much; and 3 times 2 cents are 6 cents.

2. What cost 4 oranges, at 2 cents apiece?

3. What cost 5 bushels of corn, at 2 dollars a bushel? What cost 7 bushels? 9 bushels?

4. If one barrel of flour cost 4 dollars, what cost 2 barrels? 4 barrels? 5 barrels? 6 barrels?

5. What cost 3 barrels of apples, at 3 dollars a barrel? What cost 6 barrels? 9 barrels?

6. What cost 4 quinces, at 3 cents apiece?

7. What cost 3 bushels of oats, at 4 shillings a bushel? At 5 shillings? At 6 shillings?

8. What cost 4 pounds of rice, at 3 cents a pound?

9. If one pound of raisins cost 5 cents, what cost 4 pounds? What cost 7 pounds? 9 pounds?

10. If one pound of currants cost 6 cents, what cost 2 pounds? 3 pounds? 4 pounds? 6 pounds?

11. If one pound of sugar cost 6 cents, what cost 3 pounds? 4 pounds? 6 pounds? 8 pounds?

12. What cost 5 quarts of molasses, at 4 cents a quart? What cost 7 quarts? 9 quarts?

13. What cost 6 gallons of vinegar, at 3 shillings a gallon? 7 gallons? 9 gallons? 11 gallons?

14. If one quart of cherries cost 5 cents, what cost 5 quarts? 7 quarts? 8 quarts? 9 quarts?

15. What cost 7 pounds of nutmegs, at 2 shillings a pound? At 3 shillings a pound?

16. When 5 dollars are paid for a barrel of flour, what is the cost of 3 barrels? of 7 barrels?

17. When 6 dollars are paid for a cord of wood, what must be given for 4 cords? For 7 cords?

18. What is the cost of 8 barrels of flour, at 5 dollars a barrel? At 7 dollars a barrel?

19. Bought 7 gallons of oil, at 2 dollars a gallon; what was the cost?

20. What cost 7 barrels of vinegar, at 3 dollars a barrel? If one barrel cost 3 dollars, 7 barrels will cost 7 times as much; and 7 times 3 dollars are 21 dollars.

21. What cost 6 bushels of grapes, at 4 dollars a bushel?

22. When 5 dollars are paid for one square rod of land, what must be given for 5 square rods?

23. What cost 2 pounds of sugar, at 8 cents a pound?

24. What cost 4 pounds of raisins, at 6 cents a pound?

25. If 5 cents are paid for a loaf of bread, what must be paid for 6 loaves?

26. When 5 bushels of apples are paid for a barrel of flour, how many bushels must be paid for 7 barrels of flour?

27. When 8 cents are paid for a sheet of gingerbread, how much must be given for 4 sheets?

28. If one dollar is paid for 2 gallons of oil, how much must be paid for 8 gallons?

29. When 9 dollars will buy a load of hay, what will 3 loads cost?

30. What is the value of 8 bushels of cranberries, at 5 dollars a bushel?

31. What cost 5 yards of cloth, at 5 dollars a yard?

32. What cost 3 barrels of molasses, at 10 dollars a barrel? What cost 4 barrels? 6 barrels? 8 barrels?

33. When 9 dollars will buy a vest, how much must be given for 4 vests?

34. At 7 dollars a barrel, what cost 4 barrels of fish?

35. What cost 5 quarts of chestnuts, at 8 cents a quart?

36. William bought 9 oranges, at 4 cents apiece; what did they cost?

37. Harry sold 8 peaches, at 9 cents apiece; what did he receive?

SECTION XIII.

1. What cost 2 bushels of apples, at 2 dollars a bushel? If one bushel cost 2 dollars, 2 bushels will cost two times as much; and 2 times 2 dollars are 4 dollars.

2. What cost 3 pecks of quinces, at 2 shillings a peck? At 3 shillings? At 4 shillings? At 5 shillings?

3. John gave 2 cents apiece for 3 apples; how much did they cost?

4. Bought 5 lemons for 2 cents apiece; what was the cost?

5. What cost 4 yards of riband, at 2 cents a yard?

6. What cost 5 barrels of apples, at 2 dollars a barrel? What cost 6 barrels? What cost 7 barrels?

7. What must be given for 3 rolls of candy, at 3 cents a roll? At 4 cents? At 6 cents? At 8 cents?

8. What must be given for 4 bushels of rye, at 2 dollars a bushel? 6 bushels? 8 bushels? 12 bushels?

9. What cost 3 bushels of wheat, at 2 dollars a bushel? 4 bushels? 6 bushels? 7 bushels? 9 bushels?

10. What cost 3 pounds of coffee, at 7 cents a pound? What cost 5 pounds? 7 pounds? 8 pounds? 9 pounds? 10 pounds? 11 pounds? 12 pounds?

11. What cost 3 yards of riband, at 3 cents a yard? What cost 5 yards? 6 yards? 7 yards? 8 yards?

12. If one pound of beef cost 7 cents, what cost 3 pounds? 4 pounds? 5 pounds? 6 pounds? 7 pounds?

13. If one bushel of apples cost 3 shillings, what cost 3 bushels? 8 bushels? 9 bushels? 10 bushels? 12 bushels?

14. If one pound of raisins cost 4 cents, what cost 3 pounds? 4 pounds? 5 pounds? 12 pounds? 9 pounds? 8 pounds? 7 pounds? 6 pounds? 10 pounds?

15. When 5 dollars are paid for one barrel of flour, what will be the cost of 3 barrels? Of 4 barrels? 5 barrels? 6 barrels? 7 barrels? 8 barrels? 9 barrels? 10 barrels? 11 barrels? 12 barrels?

16. Gave 6 dollars for a ton of hay; what is the value of 2 tons? 3 tons? 4 tons? 5 tons? 6 tons? 7 tons? 8 tons? 9 tons? 10 tons? 11 tons?

17. Paid 7 cents for one quart of milk: what cost 2 quarts? 3 quarts? 4 quarts? 5 quarts? 6 quarts? 7 quarts? 8 quarts? 9 quarts? 10 quarts?

18. When good sugar is sold for 8 cents a pound, what must be paid for 2 pounds? 3 pounds? 4 pounds? 5 pounds? 6 pounds? 7 pounds? 8 pounds? 9 pounds? 10 pounds? 11 pounds?

19. F. Johnson sells good coffee at 9 cents a pound; what must I pay him for 2 pounds? 3 pounds? 4 pounds? 5 pounds? 6 pounds? 7 pounds? 8 pounds? 9 pounds? 10 pounds? 12 pounds?

20. A good horse will travel 10 miles in one hour; how far will he travel in 3 hours? In 4 hours? 5 hours? 6 hours? 7 hours? 8 hours? 9 hours? 10 hours? 11 hours? 12 hours?

21. If four farthings make one penny, how many farthings are there in 4 pence? 5 pence? 6 pence? 7 pence? 9 pence? 10 pence? 11 pence? 12 pence?

22. In one shilling there are 12 pence; how many pence in 2 shillings? 3 shillings? 4 shillings? 5 shillings? 6 shillings? 7 shillings? 8 shillings?

23. In one week there are 7 days; how many days in 2 weeks? 3 weeks? 4 weeks? 5 weeks? 6 weeks? 7 weeks? 8 weeks? 9 weeks? 10 weeks? 11 weeks? 12 weeks?

SECTION XIV.

1. Four times four are how many?
2. Three times five are how many?

3. Two times six are how many?
4. Six times four are how many?
5. Five times seven are how many?
6. Eight times three are how many?
7. Five times eight are how many?
8. Four times nine are how many?
9. Nine times three are how many?
10. Seven times six are how many?
11. Six times eight are how many?
12. Three times nine are how many?
13. Five times ten are how many?
14. Eight times nine are how many?
15. Four times four are how many?
16. Seven times five are how many?
17. Nine times seven are how many?
18. Six times six are how many?
19. Two times twelve are how many?
20. Three times eleven are how many?
21. Four times ten are how many?
22. Ten times five are how many?
23. Six times ten are how many?
24. Four times twelve are how many?
25. Seven times twelve are how many?
26. Twelve times five are how many?
27. Twelve times three are how many?
28. Five times eleven are how many?
29. Eleven times six are how many?
30. Nine times nine are how many?
31. Eleven times eleven are how many?
32. Ten times ten are how many?
33. Twelve times seven are how many?
34. Twelve times ten are how many?
35. Seven times twelve are how many?
36. Seven times eleven are how many?
37. Six times twelve are how many?
38. Seven times seven are how many?
39. Twelve times twelve are how many?

SECTION XV.

Division Table.

2	in	2,	1	time	3	in	3,	1	time	4	in	4,	1	time
2	in	4,	2	times	3	in	6,	2	times	4	in	8,	2	times
2	in	6,	3	times	3	in	9,	3	times	4	in	12,	3	times
2	in	8,	4	times	3	in	12,	4	times	4	in	16,	4	times
2	in	10,	5	times	3	in	15,	5	times	4	in	20,	5	times
2	in	12,	6	times	3	in	18,	6	times	4	in	24,	6	times
2	in	14,	7	times	3	in	21,	7	times	4	in	28,	7	times
2	in	16,	8	times	3	in	24,	8	times	4	in	32,	8	times
2	in	18,	9	times	3	in	27,	9	times	4	in	36,	9	times
2	in	20,	10	times	3	in	30,	10	times	4	in	40,	10	times
2	in	22,	11	times	3	in	33,	11	times	4	in	44,	11	times
2	in	24,	12	times	3	in	36,	12	times	4	in	48,	12	times

5	in	5,	1	time	6	in	6,	1	time	7	in	7,	1	time
5	in	10,	2	times	6	in	12,	2	times	7	in	14,	2	times
5	in	15,	3	times	6	in	18,	3	times	7	in	21,	3	times
5	in	20,	4	times	6	in	24,	4	times	7	in	28,	4	times
5	in	25,	5	times	6	in	30,	5	times	7	in	35,	5	times
5	in	30,	6	times	6	in	36,	6	times	7	in	42,	6	times
5	in	35,	7	times	6	in	42,	7	times	7	in	49,	7	times
5	in	40,	8	times	6	in	48,	8	times	7	in	56,	8	times
5	in	45,	9	times	6	in	54,	9	times	7	in	63,	9	times
5	in	50,	10	times	6	in	60,	10	times	7	in	70,	10	times
5	in	55,	11	times	6	in	66,	11	times	7	in	77,	11	times
5	in	60,	12	times	6	in	72,	12	times	7	in	84,	12	times

8	in	8,	1	time	8	in	56,	7	times	9	in	9,	1	time
8	in	16,	2	times	8	in	64,	8	times	9	in	18,	2	times
8	in	24,	3	times	8	in	72,	9	times	9	in	27,	3	times
8	in	32,	4	times	8	in	80,	10	times	9	in	36,	4	times
8	in	40,	5	times	8	in	88,	11	times	9	in	45,	5	times
8	in	48,	6	times	8	in	96,	12	times	9	in	54,	6	times

9	in	63,	7	times	10	in	90,	9	times	11	in	121,	11	times
9	in	72,	8	times	10	in	100,	10	times	11	in	132,	12	times
9	in	81,	9	times	10	in	110,	11	times					
9	in	90,	10	times	10	in	120,	12	times	12	in	12,	1	time
9	in	99,	11	times						12	in	24,	2	times
9	in	108,	12	times	11	in	11,	1	time	12	in	36,	3	times
					11	in	22,	2	times	12	in	48,	4	times
10	in	10,	1	time	11	in	33,	3	times	12	in	60,	5	times
10	in	20,	2	times	11	in	44,	4	times	12	in	72,	6	times
10	in	30,	3	times	11	in	55,	5	times	12	in	84,	7	times
10	in	40,	4	times	11	in	66,	6	times	12	in	96,	8	times
10	in	50,	5	times	11	in	77,	7	times	12	in	108,	9	times
10	in	60,	6	times	11	in	88,	8	times	12	in	120,	10	times
10	in	70,	7	times	11	in	99,	9	times	12	in	132,	11	times
10	in	80,	8	times	11	in	110,	10	times	12	in	144,	12	times

SECTION XVI.

1. When 2 cents are paid for an orange, how many may be obtained for 4 cents? How many for 6 cents? How many for 8 cents? How many for 10 cents? How many for 12 cents?

2. Bought a bushel of quinces for 3 dollars; how many bushels may be obtained for 6 dollars? How many for 9 dollars? How many for 12 dollars? How many for 15 dollars?

3. Gave four dollars for one cord of wood; how many cords may be obtained for 8 dollars? How many for 12 dollars? For 16 dollars? For 20 dollars? For 28 dollars? For 36 dollars?

4. If 5 dollars will purchase a barrel of flour, how many barrels may be obtained for 10 dollars? For 15 dollars? For 20 dollars? For 40 dollars?

5. A cord of wood may be obtained for 6 dollars; how many cords may be obtained for 12 dollars? For 18 dollars? For 30 dollars? For 60 dollars?

6. If a yard of ribbon cost 7 cents, how many yards can be obtained for 21 cents? For 14 cents? For 28 cents? For 42 cents? For 56 cents?

7. When 8 cents are paid for a quart of molasses, how many quarts can be obtained for 16 cents? For 32 cents? For 24 cents? For 40 cents?

8. Paid 9 cents for a quart of cherries; how many quarts may be obtained for 27 cents? For 18 cents? For 36 cents? For 54 cents? For 45 cents?

9. How many yards of cotton cloth may be obtained for 50 cents, when one yard can be purchased for 10 cents? How many yards for 60 cents? For 70 cents? For 90 cents? For 100 cents?

10. Paid 11 cents for a penknife; how many may be obtained for 33 cents? For 55 cents? For 77 cents? For 88 cents? For 99 cents?

11. Bought 3 pounds of coffee at 8 cents a pound, and paid for it with oranges at 4 cents apiece; how many oranges did it take?

12. Sold 4 pounds of sugar at 9 cents a pound; how many pounds of butter should I receive in payment, at 12 cents a pound?

13. Bought 9 barrels of flour, at 4 dollars a barrel, and paid for it with grain, at 2 dollars a bushel; how many bushels did it take?

14. Samuel bought 5 lemons, at 4 cents apiece, and 4 apples, at 2 cents apiece; he paid for them with nuts, at 7 cents a quart; how many quarts did it require?

15. Bought 4 dozen of eggs, at 12 cents a dozen, and paid for them with sugar, at 8 cents a pound; how many pounds did it take?

16. Sold 6 quarts of milk, at 6 cents a quart, and took my pay in sugar, at 12 cents a pound; how many pounds did I receive?

17. Bought 9 cords of wood, at 6 dollars a cord, and paid for it with cloth, at 6 dollars a yard; how many yards did it take?

18. A man bought 12 bushels of wheat, at 2 dollars a bushel, and 4 yards of cloth, at 3 dollars a yard; he paid for them in wood, at 6 dollars a cord; how many cords did it take?

19. A grocer sold 12 pounds of coffee at 8 cents a pound; for pay, he received eggs, at 12 cents a dozen; how many dozen did he receive?

20. How much cloth, at 4 dollars a yard will it take to buy 9 cords of wood, at 4 dollars a cord?

21. How many pears, at 3 dollars a bushel, will it take to pay for 12 bushels of quinces, at 3 dollars a bushel?

22. James divided 54 cherries equally among 6 of his companions; how many did he give to each?

23. In one week there are 7 days; how many weeks in 21 days? In 14 days? In 28 days? In 42 days? In 35 days? In 56 days? In 63 days?

24. If 9 dollars be paid for a suit of clothes, how many suits can be bought for 63 dollars?

25. When flour is 8 dollars a barrel, how many barrels can be obtained for 56 dollars? For 64? For 72? For 80? For 104?

26. Bought 6 pounds of coffee, at 12 cents a pound, and paid for it with lard, at 12 cents a pound, how many pounds did it take?

27. A man divided 120 dollars equally among 10 poor persons; how many dollars did each receive?

28. How much rye, at 4 shillings a bushel, must be given for 8 bushels of wheat, at 6 shillings a bushel?

29. Bought 9 yards of broadcloth, at 8 dollars a yard, and paid for it in flour, at 12 dollars a barrel; how many barrels did it take?

30. Sold 12 tons of hay at 11 dollars a ton, and received pay in flour, at 12 dollars a barrel; how many barrels did I receive?

31. When vinegar is 9 cents a quart, how many quarts can be bought for 27 cents? 36 cents? For 45 cents? For 54 cents? For 108 cents?

32. A man, dying, left an estate valued at 144 dollars, to be divided equally among his 12 children; how many dollars did each receive?

33. A lady divided 54 cents equally among her 3 sons and 3 daughters; how many did each receive?

34. When 72 dollars are paid for 8 acres of land, what is the cost of 1 acre? Of 3 acres? Of 4 acres? Of 6 acres?

35. If you pay 84 cents for 7 pounds of chocolate, what is that a pound? What would 2 pounds cost? 4 pounds? 5 pounds? 6 pounds? 8 pounds?

SECTION XVII.

1. Bought 4 pounds of starch at 6 cents a pound, and 3 pounds of beef at 4 cents a pound; what was the whole cost?

2. A man bought 5 barrels of flour, at 7 dollars a barrel, and paid for it in fish, at 5 dollars a quintal; how many quintals did it take?

3. James had 25 apples; he gave 4 to Henry, 5 to William, 3 to Samuel, and 7 to Caroline; how many did he give away? How many had he left?

4. A farmer raised 25 bushels of potatoes; he sold 10 bushels to one man, 6 bushels to another, and 4 bushels to another; how many bushels remained?

5. If you have 48 pounds of sugar, which you wish to put into boxes containing 4 pounds each; how many boxes will it take?

6. 9 men bought a piece of land for 54 dollars; what did each man pay?

7. Thomas gave 6 apples to Lydia, 7 to Susan, 4 to Moses, 3 to Angelina, and had 5 left: how many

had he at first? How many more did he give to Susan than to Moses?

8. A certain school-house has 5 rows of seats, and 9 seats in each row; how many seats are there in the school-house?

9. If a certain sum of money will last 7 men 9 days, how long would it last 1 man?

10. A young lady purchased 5 yards of silk, at 2 dollars a yard, 4 yards of crape, at 3 dollars a yard, some riband for 2 dollars, and a pair of gloves for 1 dollar; she paid 3 ten dollar bills; how many dollars did she receive back again?

11. Six men can build a wall in 9 days; how many men must be employed to build it in one day?

12. A's house is 12 rods from C's, and C's 10 rods from B's, and B's 8 rods from the meeting-house; how far is A's house from the meeting-house?

13. Bought 5 yards of cotton cloth, at 8 cents a yard, 2 yards of tape, at 4 cents a yard, and some pins for 2 cents, and paid with eggs, at 10 cents a dozen; how many dozen did it take? 10 in 50, how many times?

14. Charles owed James 48 cents; at one time he paid 10 cents, at another 8 cents, and at another time 10 oranges, at 3 cents apiece; how much then remained due?

15. A farmer sold a load of hay for 15 dollars, some apples for 5 dollars, and peaches for 6 dollars; at one time he received in payment 2 barrels of flour, at 5 dollars a barrel; at another time, 4 yards of broadcloth, at 3 dollars a yard; how much still remained due?

16. James bought of Alonzo 8 quarts of cranberries, at 12 cents a quart; to pay for them, he gave raisins worth 12 cents a pound; how many pounds did it take?

17. In a school-house there are 54 seats, and 9 seats in each row; how many rows are there?

18. A set out on a journey, at the rate of 3 miles an hour; having travelled 24 miles, B set out, at the rate of 5 miles an hour; how long will it take B to overtake A?

19. If a man can walk 60 miles in 15 hours, how far would he walk in one hour? In 3 hours? In 5 hours? In 6 hours? In 10 hours?

20. Bought 6 pounds of raisins, at 8 cents a pound, and 4 quarts of vinegar, at 5 cents a quart; and paid at one time 5 pounds of butter, at 10 cents a pound, and at another time, 2 quarts of milk, at 4 cents a quart; what remains due?

21. Bought 5 barrels of flour, at 4 dollars a barrel, and sold it again for 7 dollars a barrel: what did I gain on the whole? What did I gain on a barrel?

SECTION XVIII.

1. Eight are how many times 4? How many times 2?

2. Twelve are how many times 3? How many times 6? How many times 4? How many times 2?

3. Sixteen are how many times 4? How many times 8? How many times 2?

4. Eighteen are how many times 6? How many times 3? How many times 2? How many times 9?

5. Twenty are how many times 4? How many times 5? How many times 10? How many times 2?

6. Twenty-one are how many times 7? How many times 3?

7. Twenty-four are how many times 6? How many times 4? How many times 3? How many times 8? How many times 12? How many times 2?

8. Twenty-five are how many times 5?

9. Twenty-seven are how many times 3? How many times 9?

10. Twenty-eight are how many times 7? How many times 4?

11. Thirty are how many times 3? How many times 10? How many times 5? How many times 6?

12. Thirty-five are how many times 7? How many times 5?

13. Thirty-six are how many times 6? How many times 12? How many times 3? How many times 4? How many times 9?

14. Forty are how many times 4? How many times 10? How many times 8? How many times 5?

15. Forty-two are how many times 7? How many times 6?

16. Forty-four are how many times 11? How many times 4?

17. Forty-eight are how many times 6? How many times 12? How many times 4? How many times 8?

18. Fifty are how many times 10? How many times 5?

19. Fifty-four are how many times 9? How many times 6?

20. Fifty-five are how many times 11? How many times 5?

21. Fifty-six are how many timey 7? How many times 8?

22. Sixty are how many times 10? How many times 6? How many times 5? How many times 12?

23. Sixty-three are how many times 7? How many times 9?

24. Sixty-four are how many times 8?

25. Sixty-six are how many times 11? How many times 6?

26. Seventy are how many times 10? How many times 7?

27. Seventy-two are how many times 9? How many times 8? How many times 12?

28. Eighty are how many times 10? How many times 8?

29. Eighty-one are how many times 9?

30. Eighty-four are how many times 7? How many times 12?

31. Eighty-eight are how many times 11? How many times 8?

32. Ninety are how many times 9? How many times 11?

33. Ninety-six are how many times 8? How many times 12?

34. Ninety-nine are how many times 9? How many times 11?

35. One hundred are how many times 10? How many times 5? How many times 20?

36. One hundred eight are how many times 12? How many times 9?

37. One hundred ten are how many times 11? How many times 10?

38. One hundred twenty are how many times 12? How many times 10?

39. One hundred thirty-two are how many times 11? How many times 12?

40. One hundred forty-four are how many times 12?

41. How many pounds of raisins at 8 cents a pound can you buy for 24 cents? For 32 cents? For 40 cents? For 48 cents? For 56 cents? For 96 cents?

42. How many acres of land, at 9 dollars an acre, can be bought for 36 dollars? For 45 dollars? For 54 dollars? For 72 dollars? For 108 dollars?

43. A man purchased 8 pounds of chocolate for 48 cents; what was that a pound? What the cost of 7 pounds? Of 9 pounds? Of 11 pounds? Of 12 pounds?

44. How much rye at 5 shillings a bushel, can be obtained for 45 shillings? How much for 50 shillings?

45. How many oranges, at 6 cents apiece, can you buy for 48 cents? How many for 54 cents?

46. When hay is 12 dollars a ton, how many tons can be bought for 60 dollars? For 72 dollars?

47. If 11 dollars will purchase one piece of cotton cloth, how many pieces can be obtained for 22 dollars? For 44 dollars? For 55 dollars? For 88 dollars? For 110 dollars? For 132 dollars?

SECTION XIX.

1. If 4 bushels of apples cost 8 shillings, what cost 1 bushel? What cost 3 bushels?

Solution. If four bushels cost 8 shillings, one bushel will cost 2 shillings; because one bushel will cost one fourth part as much as 4 bushels, and a fourth part of 8 shillings is 2 shillings; and if one bushel cost 2 shillings, 3 bushels will cost three times as much; and 3 times 2 shillings are 6 shillings.

2. When 3 pounds of butter are sold for 36 cents, what is the price of 1 pound? What must be given for 5 pounds?

Solution. 1 pound will cost 12 cents, because 1 pound will cost one third part as much as 3 pounds, and 1 third of 36 cents is 12 cents; and, if one pound cost 12 cents, 5 pounds will cost 5 times 12 cents, which are 60 cents.

3. If 2 barrels of apples cost 4 dollars, what will 1 barrel cost? What cost 3 barrels? 4 barrels? 5 barrels? 6 barrels? 8 barrels?

4. When 6 dollars will purchase 3 yards of Alpine cloth, what will one yard cost? 2 yards? 4 yards? 5 yards? 7 yards? 9 yards?

5. A boy gave 8 cents for 4 pears, what did one pear cost? 2 pears? 3 pears? 5 pears? 6 pears?

6. Lucy bought 3 skeins of thread, for 9 cents; what was that a skein? What cost 2 skeins? 4 skeins? 6 skeins? 8 skeins? 9 skeins? 10 skeins?

7. Adeline gave 10 cents for 5 rolls of candy; what cost one roll? 2 rolls? 3 rolls? 4 rolls? 6 rolls?

8. If 12 dollars be given for 6 barrels of vinegar, what must be given for one barrel? For 2 barrels? For 4 barrels? For 5 barrels? For 7 barrels? For 8 barrels? For 9 barrels?

9. When chalk can be bought at the rate of 7 pounds for 14 cents, what costs one pound? 2 pounds? 3 pounds? 5 pounds? 9 pounds?

10. If 15 dollars will buy 5 barrels of soap, how many dollars must be given for one barrel? For 2 barrels? For 3 barrels? For 6 barrels? For 7 barrels?

11. Sarah gave 16 cents for 2 papers of pins; what cost one paper? 3 papers? 4 papers? 6 papers? 7 papers? 8 papers? 9 papers? 12 papers?

12. If 4 bushels of wheat cost 16 dollars, what will one bushel cost? 2 bushels? 3 bushels? 5 bushels?

13. Bought 2 pounds of butter for 12 cents; what was that a pound? What cost 3 pounds? 4 pounds?

14. Sold 5 yards of broadcloth for 15 dollars; what was the price of one yard? Of 2 yards? Of 3 yards? Of 6 yards? Of 8 yards? Of 9 yards? Of 12 yards?

15. Margaret gave 16 cents for 4 needles; what did she give apiece? What was the cost of 2 needles? Of 3 needles? Of 5 needles? Of 7 needles?

16. What cost one yard of cloth, if 6 yards can be bought for 18 dollars? What cost 2 yards? 3 yards? 4 yards?

17. William gave 20 cents for 5 peaches; what was the cost of one peach? Of 3 peaches? Of 4 peaches? Of 6 peaches? Of 9 peaches? Of 12 peaches?

18. When 7 cords of pine-wood cost 21 dollars; what is the cost of one cord? Of 2 cords? Of 3 cords? Of 4 cords? Of 5 cords? Of 6 cords?

19. If 24 dollars will purchase 8 acres of wild land, how much will 1 acre cost? 2 acres? 3 acres? 4 acres? 10 acres? 12 acres?

20. A lady purchased 9 yards of Alpacca cloth for 18 dollars; what was that a yard? What cost 2 yards? 3 yards? 4 yards? 5 yards? 6 yards?

21. If 4 oranges cost 12 cents; what will one orange cost? 2 oranges? 3 oranges? 5 oranges? 6 oranges? 7 oranges? 8 oranges? 9 oranges?

22. If 16 cents are paid for 8 nutmegs, what are they apiece? What would 2 nutmegs cost? 3 nutmegs? 4 nutmegs? 6 nutmegs? 7 nutmegs? 9 nutmegs? 12 nutmegs?

23. A man bought 8 pounds of coffee for 24 cents; what was it a pound? What cost 2 pounds? 4 pounds? 5 pounds? 6 pounds? 7 pounds? 9 pounds?

24. Bought 10 pairs of shoes for 30 dollars; what cost one pair? 2 pairs? 3 pairs? 4 pairs? 5 pairs? 7 pairs? 8 pairs? 9 pairs? 12 pairs?

25. Sold 7 barrels of flour for 28 dollars; what cost one barrel? What cost 4 barrels? 6 barrels? 8 barrels? 10 barrels? 12 barrels?

26. If 4 yards of cambric cost 32 cents, what is the cost of one yard? Of 2 yards? Of 3 yards? Of 5 yards? Of 7 yards? Of 8 yards? Of 9 yards? Of 12 yards?

27. When wheat is sold at the rate of 9 bushels for 27 dollars, what is that a bushel? What cost 2 bushels? 3 bushels? 4 bushels? 5 bushels? 6 bushels? 7 bushels? 8 bushels? 10 bushels? 11 bushels? 12 bushels?

28. If 2 pounds of rice cost 6 cents, what will 4 pounds cost? If two pounds cost six cents, one pound will cost one half as much, and one half of six cents is three cents; if one pound cost 3 cents, 4 pounds will cost 4 times as much; and 4 times 3 cents are twelve cents, Ans.

29. If four pounds of flour cost 16 cents, what will 1 pound cost? 2 pounds? 5 pounds? 8 pounds? 12 pounds? 9 pounds? 7 pounds? 11 pounds?

30. If 9 ounces of nutmegs cost 45 cents, what will one ounce cost? What will 10 ounces cost?

31. If 48 cents are paid for 6 dozen of eggs, what

will one dozen cost? If one dozen cost 8 cents, what will 4 dozen cost? 5 dozen? 9 dozen? 7 dozen? 8 dozen? 10 dozen? 12 dozen?

32. If 5 tons of hay cost 50 dollars, what is that a ton? If one ton cost 10 dollars, what cost 8 tons? 9 tons? 10 tons? 11 tons? 12 tons?

33. Paid 63 cents for 7 pounds of cheese; what was the cost of one pound? Of 2 pounds? Of 6 pounds? Of 9 pounds? Of 10 pounds? Of 11 pounds? Of 12 pounds?

34. James gave 72 cents for 9 steel pens; what was the price of one? If one pen cost 8 cents, what cost 10 pens? 11 pens? 12 pens? 13 pens?

35. Mary purchased 9 yards of muslin for 81 cents; what was that a yard? What cost 8 yards? 10 yards? 12 yards? 7 yards? 5 yards?

36. A farmer sold at market 8 cords of wood, for which he received 64 dollars; what did he receive per cord? What for 4 cords? 5 cords? 7 cords?

37. A merchant bought 7 boxes of sugar for 63 dollars; what was that a box? What cost 4 boxes? 6 boxes? 8 boxes? 9 boxes? 10 boxes? 12 boxes?

38. A lady purchased 9 yards of riband for 81 cents; what cost one yard? 2 yards? 5 yards? 7 yards? 8 yards? 10 yards? 11 yards? 12 yards?

39. A gentleman purchased 12 yards of broadcloth for 60 dollars; what was the cost of one yard? 2 yards? 4 yards? 6 yards? 7 yards? 9 yards? 10 yards? 11 yards? 13 yards? 15 yards? 20 yards?

SECTION XX.

If an apple be divided into two equal parts, one of these parts is called a half, and is written thus, $\frac{1}{2}$.

If a pear be divided into three equal parts, one of these parts is called a third, and is written thus, $\frac{1}{3}$.

Two of these parts are called two thirds, and are written thus, $\frac{2}{3}$.

This number ($\frac{2}{3}$) is called a *fraction*, and the 3 *below* the line is called the denominator of the fraction, and shows into how many parts the pear (or whatever the thing may be) is divided, and the 2 *above* the line is called the numerator, and shows how many parts of the pear are taken.

1. If one third ($\frac{1}{3}$) of an orange cost 2 cents, what cost two thirds ($\frac{2}{3}$)?

Solution. Two thirds ($\frac{2}{3}$) will cost twice as much as one third ($\frac{1}{3}$). Twice 2 cents are 4 cents, Ans.

2. When three eighths ($\frac{3}{8}$) of a dollar are paid for 12 yards of riband, how much can be bought for one eighth ($\frac{1}{8}$) of a dollar? How much for seven eighths ($\frac{7}{8}$) of a dollar? How much for $\frac{8}{8}$?

Solution. If 3 eighths of a dollar will buy 12 yards, 1 eighth of a dollar will buy 1 third as many yards, and 1 third of 12 yards is 4 yards. And, if 1 eighth of a dollar buy 4 yards, 7 eighths of a dollar will buy 7 times as many, and 7 times 4 yards are 28 yards; and 8 eighths of a dollar, which is a whole dollar, will buy 8 times 4 yards, which are 32 yards, Ans.

3. How many halves are there in an orange?
4. How many thirds are there in a cent?
5. How many ninths in a dollar?
6. How many twelfths in a bushel?
7. 2 is one half of what number?
8. 3 is one third of what number?
9. 5 is one fifth of what number?
10. 7 is one twelfth of what number?
11. 4 is one eighth of what number?
12. 5 is one sixth of what number?
13. 6 is one eighth of what number?
14. 9 is one fourth of what number?
15. 8 is one fifth of what number?
16. 10 is one fourth of what number?

17. 11 is one eighth of what number?

18. A lady bought half a yard of velvet for 1 dollar; what would 1 yard cost at the same rate?

19. If half a yard of tape cost 2 cents, what will 1 yard cost?

20. If one fourth of a pound of beef cost 2 cents, what cost 1 pound?

21. If a third of an orange cost one cent, what is the cost of a whole orange?

22. Bought 1 sixth of a barrel of flour for 1 dollar; what cost 1 barrel at the same rate?

23. 3 is one third of what number?

24. 2 is one fourth of what number?

25. A man bought 1 eighth of a ton of hay for 3 dollars; what was the cost of a ton at that rate?

26. 8 is one third of what number?

27. 6 is one seventh of what number?

28. 9 is one eighth of what number?

29. 10 is one fifth of what number?

30. 7 is one fourth of what number?

31. 9 is one tenth of what number?

SECTION XXI.

1. If you can buy an orange for 2 cents, how much can you buy for one cent?

One is what part of two?

Ans. One is one half of two.

2. How many times 1 are there in 2?

3. If you can buy a lemon for 2 cents, how many can you buy for 3 cents?

How many times 2 are there in 3?

Ans. Once 2 and one half of 2.

4. 4 are how many times 2?

5. If 2 dollars will purchase 1 yard of broadcloth, how many yards will 5 dollars purchase?

How many times 2 are there in 5?

Ans. Two times 2 and one half of 2.

6. How many times 2 are there in 8?

7. 9 are how many times 2?

Ans. 4 times 2 and a half of 2.

8. 10 are how many times 2?

9. 12 are how many times 2?

10. If an orange is worth 3 cents, and it be cut into 3 equal parts, what is one of those parts, or one third of it, worth? What is the third of 3? What are two thirds of 3?

11. When wood is worth 4 dollars a cord, what part of a cord will 1 dollar buy? What part of a cord will 2 dollars buy?

12. If you can buy a yard of cloth for 3 dollars, how many yards can you buy for 4 dollars? How many for 5 dollars? How many for 6 dollars?

13. 4 are how many times 3? 6 are how many times 3?

14. If a pound of iron can be purchased for 3 cents, how many pounds will 7 cents purchase?

7 are how many times 3?

15. How many times 3 are there in 8?

16. 9 are how many times 3?

17. 10 are how many times 3?

18. How many times 3 in 11? 12 are how many times 3?

19. If you buy a bushel of corn for 4 shillings, and divide it into 4 equal parts, what will one of those parts, or one fourth of it, be worth? What will 2 fourths be worth? What will 3 fourths be worth?

20. What is one fourth of 4? Ans. One fourth of 4 is one.

21. 2 is what part of 4? 3 is what part of 4?

22. Bought a small piece of land for 6 dollars, and divided it into 6 equal parts; what was 1 part, or one sixth of it, worth? What were 2 sixths of it worth? What were 3 sixths of it worth? 4 sixths?

23. If flour is worth 6 dollars a barrel, what part of a barrel will 1 dollar buy? What part will 2 dollars buy? 3 dollars? 4 dollars? 5 dollars?

SECTION XXII.

1. If half a barrel of flour cost 4 dollars, what will be the value of a whole barrel? Ans. 8 dollars; because two halves are twice as much as one half.

2. If one third of a pound of raisins cost 2 cents, what will be the price of a whole pound? Ans. 6 cents.

3. If one third of a bushel of nuts cost 2 dollars, what cost two thirds? Ans. 4 dollars; because two thirds are twice one third.

4. What cost 2 yards and one half of a yard of riband, at 2 cents a yard? Ans. 5 cents?

2 times 2 and one half of 2 are how many?

5. At 3 shillings a gallon, what cost 4 gallons and one third of a gallon of oil?

4 times 3 and one third of 3 are how many?

6. At 3 dollars a cord, what cost 4 cords and 2 thirds of a cord of wood?

4 times 3 and 2 thirds of 3 are how many?

7. At 6 shillings a bushel, what cost 3 bushels and one third of a bushel of rye?

8. If a box of sugar cost 5 dollars, what cost 4 boxes and 2 fifths of a box?

4 times 5 and 2 fifths of 5 are how many?

9. If a barrel of flour cost 4 dollars, what cost 5 barrels and 2 fourths of a barrel?

5 times 4 and 2 fourths of 4 are how many?

10. 3 times 5 and 2 fifths of 5 are how many?

11. 4 times 4 and 3 fourths of 4 are how many?

12. 6 times 3 and 2 thirds of 3 are how many?

13. When apples are worth 6 shillings a barrel, what cost 4 barrels and 5 sixths of a barrel? How much would 7 barrels and 4 sixths of a barrel cost?

14. 4 times 6 and 5 sixths of 6 are how many?

15. 7 times 6 and 4 sixths of 6 are how many?

16. 6 times 6 and 3 sixths of 6 are how many?

17. At 7 dollars a cord, what cost 3 cords and 1 seventh of a cord of wood? What will 4 cords and 4 sevenths of a cord cost?

3 times 7 and 1 seventh of 7 are how many?

18. 4 times 7 and 4 sevenths of 7 are how many?

19. 5 times 7 and 5 sevenths of 7 are how many?

20. 3 times 5 and 4 fifths of 5 are how many?

21. 8 times 4 and 3 fourths of 4 are how many?

22. At 8 dollars a yard, what cost 3 yards and 1 eighth of a yard of cloth?

3 times 8 and 1 eighth of 8 are how many?

23. 3 times 7 and 2 sevenths of 7 are how many?

24. 5 times 7 and 4 sevenths of 7 are how many?

25. 8 times 7 and 5 sevenths of 7 are how many?

26. 9 times 7 and 6 sevenths of 7 are how many?

27. When hay is 9 dollars a ton, what will 3 tons and 1 ninth of a ton cost? What will 5 tons and 3 ninths of a ton cost?

28. 3 times 9 and 1 ninth of 9 are how many?

29. 5 times 9 and 3 ninths of 9 are how many?

30. 6 times 9 and 5 ninths of 9 are how many?

31. 7 times 9 and 4 ninths of 9 are how many?

32. 2 times 10 and 1 tenth of 10 are how many?

33. 5 times 10 and 3 tenths of 10 are how many?

34. At 10 cents a pound, what cost 6 pounds and 3 tenths of a pound of raisins?

6 times 10 and 3 tenths of 10 are how many?

35. At 9 cents a pound, what cost 8 pounds and 5 ninths of a pound of butter?

8 times 9 and 5 ninths of 9 are how many?

SECTION XXIII.

1. If you can buy a pound of raisins for 8 cents, what part of a pound can you buy for 1 cent? What

part of a pound can you buy for 2 cents? What part for 4 cents? What part for 5 cents? What part for 6 cents? What part for 7 cents? How much for 9 cents? How much for 10 cents? How much for 12 cents? How much for 16 cents?

2. If you can buy a pound of coffee for 9 cents, what is 1 ninth of it worth? What are 2 ninths of it worth? 3 ninths? 5 ninths? 6 ninths? 8 ninths?

3. A man bought a hogshead of molasses for 9 dollars; what part could he buy for 1 dollar? What part for 2 dollars? 3 dollars? 5 dollars? 6 dollars? 8 dollars? How much for 10 dollars? 12 dollars? 15 dollars? 18 dollars?

4. Bought a quart of cherries for 10 cents; what would one tenth of a quart cost? 2 tenths? 3 tenths? 4 tenths? 6 tenths? 8 tenths? 9 tenths?

5. Gave 10 dollars for an acre of wild land; what part of an acre would 1 dollar buy? What part would 2 dollars buy? 3 dollars? 4 dollars? 5 dollars? 7 dollars? 9 dollars? How much would 12 dollars buy? 14 dollars? 18 dollars? 20 dollars?

6. 10 are how many times 2? 4? 5? 6? 9? 8?

7. 11 are how many times 7? 8? 3? 6? 5? 9?

8. 9 are how many times 4? 5? 6? 7? 3? 8?

9. 8 are how many times 5? 6? 7? 4? 2? 9?

10. 12 are how many times 4? 5? 7? 8? 9? 6?

11. 14 are how many times 2? 3? 4? 6? 7? 8?

12. A boy had 16 cents; how many oranges could he buy at 4 cents apiece? How many at 5 cents apiece? How many at 7 cents? How many at 8 cents? How many at 9 cents?

13. 16 are how many times 4? 5? 7? 8? 9? 10?

14. 17 are how many times 4? 5? 3? 6? 7? 9?

15. 18 are how many times 3? 4? 5? 7? 6? 9?

16. 20 are how many times 4? 10? 8? 5? 2? 9?

17. 22 are how many times 2? 4? 11? 5? 10?

18. A man had 24 dollars; how many barrels of

flour could he buy with that sum at 4 dollars a barrel? How many at 5 dollars a barrel? How many at 7 dollars a barrel? How many at 8 dollars a barrel?

19. 24 are how many times 4? 6? 8? 3? 7? 10?

20. 28 are how many times 3? 4? 6? 7? 8? 10?

21. 25 are how many times 5? 4? 3? 6? 8? 9?

22. 27 are how many times 3? 8? 9? 7? 6? 11? 2? 4? 5? 10? 12? 13? 14? 15? 16?

23. 30 are how many times 4? 5? 10? 3? 6? 7? 9? 8? 11? 12? 13? 14? 15? 16?

24. 32 are how many times 8? 4? 5? 7? 6? 9?

25. 35 are how many times 6? 7? 4? 5? 12?

26. 40 are how many times 5? 6? 8? 4? 10? 12? 2? 3? 7? 9? 13? 14? 15? 16? 17?

27. If a pound of coffee cost 6 cents, how many pounds can be bought for 46 cents? For 32 cents?

28. At 8 cents a pound, how many pounds of sugar can be bought for 48 cents? For 50 cents? For 58 cents?

29. 46 are how many times 5? 7? 8? 9? 10? 11? 12? 13? 14? 15? 18? 20?

30. 48 are how many times 6? 7? 4? 9? 8? 11?

31. A lady had 50 dollars; how many yards of silk could she purchase at 4 dollars a yard? How many could she purchase at 5 dollars a yard? How many at 10 dollars a yard? 8 dollars a yard?

32. 50 are how many times 5? 6? 7? 8? 10? 9? 2? 3? 4? 11? 12? 13? 20? 25?

33. 56 are how many times 8? 9? 6? 4? 7? 5?

SECTION XXIV.

1. 6 is $\frac{3}{4}$ of what number?

Solution. If 6 be 3 fourths, 2 will be 1 fourth, and if 2 be 1 fourth, 8 will be 4 fourths, because 4 times 2 are 8; therefore 6 is $\frac{3}{4}$ of 8.

2. 12 is $\frac{2}{3}$ of what number?

Solution. If 12 be 2 thirds, 6 will be 1 third, because 6 is half of 12; and if 6 be 1 third, 18 will be 3 thirds, because 18 is 3 times 6, therefore 12 is $\frac{2}{3}$ of 18.

3. Of what number is 16 the $\frac{4}{5}$?

Solution. If 16 be 4 fifths, 4 will be 1 fifth, because 4 is 1 fourth of 16, and if 4 be 1 fifth, 20 will be 5 fifths; therefore 16 is $\frac{4}{5}$ of 20.

4. 20 is $\frac{4}{7}$ of what number?
5. 21 is $\frac{3}{4}$ of what number?
6. 15 is $\frac{5}{6}$ of what number?
7. 10 is $\frac{2}{11}$ of what number?
8. 18 is $\frac{3}{7}$ of what number?
9. 22 is $\frac{11}{12}$ of what number?
10. 24 is $\frac{6}{7}$ of what number?
11. 25 is $\frac{5}{11}$ of what number?
12. 28 is $\frac{4}{7}$ of what number?
13. 30 is $\frac{5}{9}$ of what number?
14. 36 is $\frac{6}{11}$ of what number?
15. 30 is $\frac{2}{3}$ of what number?
16. 40 is $\frac{8}{9}$ of what number?
17. 48 is $\frac{6}{7}$ of what number?
18. 42 is $\frac{7}{9}$ of what number?
19. 60 is $\frac{1}{8}$ of what number?
20. 66 is $\frac{6}{7}$ of what number?
21. 72 is $\frac{2}{3}$ of what number?
22. 80 is $\frac{8}{11}$ of what number?
23. 96 is $\frac{8}{9}$ of what number?
24. 100 is $\frac{2}{5}$ of what number?

25. A gentleman bought some oats and some corn; he gave 42 cents a bushel for the oats, which was $\frac{7}{9}$ of the price of the corn; what was paid for the corn?

26. Bought a horse and carriage; the horse cost 81 dollars, which was $\frac{9}{8}$ of what was paid for the carriage; what was the value of the carriage, and what was the cost of both?

27. A man having a certain quantity of money,

gave 18 dollars to some poor persons, it being $\frac{6}{11}$ of what he had; how much had he then left?

28. A boy had a quantity of nuts; $\frac{7}{8}$ of them, which were 42, were in one pocket, and the remainder in the others; how many nuts had he?

SECTION XXV.

TABLE OF UNITED STATES MONEY.

10 Mills	make	1 Cent,	marked	c.
10 Cents	"	1 Dime,	"	d.
10 Dimes	"	1 Dollar,	"	$.
10 Dollars	"	1 Eagle,	"	E.

1. How many mills in 1 cent? In 2 cents? In 4 cents? In 5 cents? In 6 cents? In 10 cents? In 12 cents? In 20 cents? In 30 cents? In 35 cents? In 40 cents?

2. How many cents in 19 mills? In 20 mills? In 40 mills? In 50 mills? In 70 mills? In 80 mills? In 100 mills? In 110 mills? In 140 mills? In 150 mills? In 200 mills?

3. How many cents in 1 dime? In 2 dimes? In 4 dimes? In 5 dimes? In 7 dimes? In 8 dimes? In 9 dimes? In 10 dimes? In 14 dimes? In 20 dimes? In 25 dimes? In 35 dimes? In 50 dimes? In 100 dimes? In 110 dimes? In 120 dimes? In 140 dimes? In 150 dimes? In 155 dimes? In 175 dimes? In 200 dimes?

4. How many cents in 1 dollar? In 2 dollars? In 4 dollars? In 5 dollars? In 7 dollars? In 9 dollars? In 10 dollars? In 12 dollars? In 14 dollars? In 15 dollars? In 20 dollars?

5. How many dimes in 20 cents? In 40 cents? In 50 cents? In 80 cents? In 100 cents? In 110 cents? In 140 cents? In 150 cents? In 200 cents?

6. How many dimes in 1 dollar? In 2 dollars? In

4 dollars? In 6 dollars? In 8 dollars? In 10 dollars? In 12 dollars? In 15 dollars? In 20 dollars?

7. How many eagles in 10 dollars? In 20 dollars? In 40 dollars? In 70 dollars? In 80 dollars? In 90 dollars? In 100 dollars? In 120 dollars? In 150 dollars? In 180 dollars? In 200 dollars?

8. How many dollars in 2 eagles? In 4 eagles? In 6 eagles? In 9 eagles? In 12 eagles? In 20 eagles? In 40 eagles? In 50 eagles? In 70 eagles? In 80 eagles? In 85 eagles? In 100 eagles?

9. How many dimes in 20 cents? In 30 cents? In 40 cents? In 50 cents? In 70 cents? In 90 cents? In 100 cents? In 110 cents? In 120 cents? In 140 cents? In 150 cents? In 200 cents?

10. How many dollars in 20 dimes? In 40 dimes? In 100? How many cents in 1 eagle? In 2 eagles? In 4 eagles? In 5 eagles?

11. How many dimes in 1 eagle? In 2 eagles? 3 eagles? In 4 eagles? In 6 eagles?

12. If you wish to divide a dollar among four of your companions, how many cents would you give to each? How many dimes to each?

13. A man divided an eagle equally among his five sons; how many dollars did he give them apiece? How many dimes to each? How many cents to each?

SECTION XXVI.

Table of English Money.

4 Farthings	make	1 Penny,	marked	d.
12 Pence	"	1 Shilling,	"	s.
20 Shillings	"	1 Pound,	"	£.
21 Shillings sterling	"	1 Guinea,	"	gui.
28 Shillings lawful money	"	1 Guinea,	"	gui.

1. How many pence in 8 farthings? In 12 farthings?

In 16 farthings? In 20 farthings? In 24 farthings? In 32 farthings? In 36 farthings? In 40 farthings? In 44 farthings? In 43 farthings?

2. How many farthings in 2 pence? In 4 pence? In 6 pence? In 9 pence? In 10 pence? In 11 pence? In 12 pence? In 20 pence? In 30 pence? In 40 pence?

3. How many shillings in 12 pence? In 24 pence? In 48 pence?

4. How many pence in 2 shillings? In 4 shillings? In 5 shillings? In 7 shillings? In 8 shillings? In 9 shillings? In 10 shillings? In 11 shillings? In 12 shillings?

5. In 20 shillings how many pounds? In 40 shillings? In 80 shillings? In 160 shillings? How many shillings in 2 pounds? In 3 pounds? In 4 pounds? In 5 pounds?

SECTION XXVII.

Table of Troy Weight.

24 Grains	make	1 Pennyweight,	marked	dwt.
20 Pennyweights	"	1 Ounce,	"	oz.
12 Ounces	"	1 Pound,	"	lb.

By this weight are weighed gold, silver, and jewels.

1. How many pennyweights in 24 grains? In 48?

2. How many ounces in 20 pennyweights? In 40 dwt.? In 80 dwt?

3. In 12 ounces how many pounds? In 24 ounces? In 36 ounces? In 48 ounces? In 60 ounces? In 72 ounces? In 84 ounces?

4. If one silver spoon weigh 4 ounces, what will 6 spoons weigh? 8 spoons? 10 spoons? 12 spoons?

5. Bought 3 ounces of gold for 28 dollars; what cost one ounce? 4 ounces? 5 ounces? 8 ounces? 9 ounces? 10 ounces? 12 ounces?

6. In 40 pennyweights and 3 ounces how many ounces?

7. In 6 pounds 4 ounces how many ounces?

8. How many pennyweights in 48 grains? How many in 96 grains?

9. A jeweller sold 10 dwt. of silver plate at 7 shillings a dwt.; what did he receive?

10. In 4 pounds how many ounces? How many in 5 pounds?

11. In 3 ounces how many pennyweights?

12. How many grains in 2 pennyweights?

SECTION XXVIII.

Table of Apothecaries' Weight.

20 Grains	make	1 Scruple,	marked	sc. or ℈.
3 Scruples	"	1 Dram,	"	dr. or ʒ.
8 Drams	"	1 Ounce,	"	oz. or ℥.
12 Ounces	"	1 Pound,	"	lb. or ℔.

Note. — The above table is used by apothecaries in mixing their medicines, but they buy and sell them by Avoirdupois.

1. How many grains in 1 scruple? How many in 2 scruples? In 3 scruples? In 4 scruples? In 5 scruples?

2. How many drams in 3 scruples? How many in 6 scruples? In 9 scruples? In 12 scruples? In 15 scruples? In 21 scruples?

3. How many drams in 1 ounce? How many in 2 ounces? In 4 ounces? In 6 ounces? In 7 ounces? In 8 ounces? In 9 ounces? In 12 ounces?

4. How many pounds in 12 ounces? In 24 ounces? In 36 ounces? In 48 ounces? In 60 ounces? In 72 ounces? In 84 ounces?

5. How many ounces in 1 pound? In 2 pounds?

In 3 pounds? In 6 pounds? In 8 pounds? In 9 pounds? In 10 pounds? In 12 pounds?

6. In 16 drams how many ounces?
7. In 4 scruples how many grains?
8. In 5 pounds how many ounces?
9. How many drams in 7 ounces?
10. In 9 drams how many scruples?

SECTION XXIX.

Table of Avoirdupois Weight.

16 Drams	make	1 Ounce,	marked oz.
16 Ounces	"	1 Pound,	" lb.
28 Pounds	"	1 Quarter,	" qr.
4 Quarters	"	1 Hundred-weight,	" cwt.
20 Hundred-weight,	"	1 Ton,	" ton.

By this weight are weighed almost every kind of goods, and all metals except gold and silver. By a late law of Massachusetts, the cwt. contains 100 lbs. instead of 112 lbs.

1. How many ounces in 1 pound? In 2 pounds?
2. How many ounces in 1 pound 6 ounces?
3. How many pounds in 16 ounces? How many pounds in 17 ounces? Ans. 1 pound 1 ounce.
4. In 20 ounces how many pounds? In 22 ounces? In 24 ounces? In 28 ounces? In 32 ounces?
5. In one hundred-weight, how many quarters?
6. In 2 hundred-weight, how many quarters? In 4 hundred-weight? In 6? In 8? In 10? In 12?
7. How many tons in 20 hundred-weight? How many in 40 hundred-weight? In 80 hundred-weight? In 60 hundred-weight? In 100 hundred-weight?
8. How many hundred-weight in 2 tons? In 3 tons? In 4 tons? In 5 tons?

9. Bought 4 hundred-weight of sugar, at 9 dollars a hundred-weight; what was the cost?

10. How many drams in 1 ounce? In 2 ounces? In 3 ounces?

SECTION XXX.

Table of Long Measure.

10 Lines	make	1 Inch,	marked	in.
12 Inches	"	1 Foot,	"	ft.
3 Feet	"	1 Yard,	"	yd.
$5\frac{1}{2}$ Yards, or $16\frac{1}{2}$ feet	"	1 Rod, or pole,	"	rd.
40 Rods	"	1 Furlong,	"	fur.
8 Furlongs	"	1 Mile,	"	m.
3 Miles	"	1 League,	"	lea.
$69\frac{1}{2}$ Miles (nearly)	"	1 Degree,	"	deg. or °.
360 Degrees	"	1 Circle of the Earth.		

1. How many furlongs in 1 mile? In 2 miles? In 4 miles?

2. How many miles in 3 leagues? In 4 leagues? In 7 leagues? In 9 leagues?

3. How many furlongs in 30 rods? In 160 rods?

4. How many yards in 2 rods? In 4 rods? In 5 rods?

5. How many feet in 12 yards? In 6 yards? In 18 yards?

6. How many inches in 2 feet? In 4 feet? In 8 feet?

7. How many inches in 3 feet 6 inches?

8. How many furlongs in 80 rods? In 96 rods?

9. If a man can travel 45 miles in 9 hours, how far will he travel in 1 hour? How far in 4 hours? In 6 hours? In 8 hours? In 10 hours? In 12 hours?

10. There are 8 furlongs in 1 mile; how many furlongs in 6 miles? In 7 miles? In 9 miles?

11. In 4 feet, how many inches?
12. In 3 furlongs, how many rods?
13. If a man can travel 1 furlong in 5 minutes, how long will it take him to travel 1 mile?

SECTION XXXI.

Table of Cloth Measure.

2¼	Inches	make	1 Nail,	marked	na.
4	Nails	"	1 Quarter of a Yard,	"	qr.
4	Quarters	"	1 Yard,	"	yd.
3	Quarters	"	1 Ell Flemish,	"	E. F.
5	Quarters	"	1 Ell English,	"	E. E.

Note. — The Ell French is not in use.

1. How many nails in 1 quarter? In 2 quarters?
2. How many nails in 3 quarters? In 4 quarters? In 5 quarters? In 6 quarters? In 8 quarters?
3. How many quarters in 1 yard? In 4 yards? In 7 yards? In 9 yards?
4. How many yards in 8 quarters? In 16 quarters? In 24 quarters?
5. How many quarters in 4 ells Flemish? In 7 ells?
6. How many ells English in 10 quarters? In 15 quarters? In 25 quarters? In 20 quarters?
7. What cost 2 yards and 1 quarter of a yard of cloth, at 4 dollars a quarter?
8. How many nails in 16 quarters? In 20 quarters? In 24 quarters? In 28 quarters. In 32 quarters?
9. What cost 10 yards of broadcloth, at 5 dollars a yard? What cost 12 yards? 8 yards? 11 yards?
10. How many quarters in 16 nails?
11. How many yards in 20 quarters?
12. How many ells English in 30 quarters?

SECTION XXXII.

TABLE OF SQUARE MEASURE.

144	Square inches	make	1 Square foot, marked	ft.
9	Square feet	"	1 Square yard, "	yd.
$30\frac{1}{4}$	Square yards	"	1 Square rod or pole,	p.
$272\frac{1}{4}$	Square feet	"	1 Square rod or pole,	p.
40	Square rods	"	1 Rood, "	R.
4	Roods	"	1 Acre, "	A.
640	Acres	"	1 Square mile, "	S. M.

1. How many square feet in 1 square yard? In 2 square yards? In 3 square yards? In 4 square yards? In 5 square yards? In 7 square yards? In 8 square yards? In 9 square yards?

2. How many square feet in 2 square yards 4 feet?

3. How many square yards in 27 square feet? In 36 square feet? In 37 square feet?

4. How many acres in 16 roods? In 20 roods?

5. How many roods in 4 acres? In 6 acres? In 7 acres?

6. What cost 12 acres of land, at 9 dollars an acre?

7. How many square rods in a field 12 rods long, 9 rods wide?

8. What cost a piece of land 7 rods long, 6 rods wide, at 1 dollar a square rod?

SECTION XXXIII.

CUBIC MEASURE.

1728	cubic inches		make	1 Foot.
27	"	Feet	"	1 Yard.
40	"	Feet of timber	"	1 Ton, marked T.
128	"	Feet	"	1 Cord of wood.

NOTE. — If a pile of wood be 8 feet long, 4 feet wide, and 4 feet high, it contains 1 cord of wood.

1. How many cubic feet in 3 tons of timber?
2. How many cubic feet in 5 tons of timber?
3. What cost 7 cords of wood at 5 dollars a cord?
4. What cost 12 tons of timber at 7 dollars per ton?
5. What cost 50 cubic yards of marble at 10 dollars per yard?
6. How many cubic feet in 10 cubic yards?
7. How many cubic feet in 10 cords?
8. What cost 100 cords of wood at 10 dollars per cord?

SECTION XXXIV.

Table of Wine Measure.

4 Gills	make	1 Pint,	marked	pt.
2 Pints	"	1 Quart,	"	qt.
4 Quarts	"	1 Gallon,	"	gal.
42 Gallons	"	1 Tierce,	"	tier.
63 Gallons	"	1 Hogshead,	"	hhd.
2 Tierces	"	1 Puncheon,	"	pun.
2 Hogsheads	"	1 Pipe or butt,	"	pi.
2 Pipes or 4 Hhds.	"	1 Tun,	"	tun.

1. How many gills in 4 pints? In 2 pints? In 6 pints? In 8 pints? In 10 pints? In 12 pints?
2. How many quarts in 6 pints? In 8 pints? In 10 pints?
3. In 16 gallons how many quarts? In 20 gallons?
4. How many gills in one quart? In 2 quarts?
5. How many gills in one gallon?
6. In one tun, how many hogsheads? In 2 tuns? In 4 tuns? In 6 tuns? In 9 tuns? In 10 tuns?
7. What cost 8 gallons of vinegar, at 5 cents a quart? At 6 cents? At 8 cents? At 12 cents?
8. What cost 9 hogsheads of molasses, at 12 dollars a hogshead? At 9 dollars? At 7 dollars?

9. Gave 42 cents for 2 quarts of oil; what was it a quart? What cost a pint? What cost 4 quarts? 7 quarts? 9 quarts? 10 quarts? 12 quarts?

10. Bought 6 hogsheads of molasses for 54 dollars; what cost 1 hogshead? 2 hogsheads? 5 hogsheads? 7 hogsheads? 8 hogsheads? 9 hogsheads?

SECTION XXXV.

Table of Ale and Beer Measure.

2 Pints	make	1 Quart,	marked	qt.
4 Quarts	"	1 Gallon,	"	gal.
32 Gallons	"	1 Barrel,	"	bar.
54 Gallons	"	1 Hogshead,	"	hhd.
2 Hogsheads	"	1 Butt,	"	butt.
2 Butts	"	1 Tun,	"	tun.

Note. — By a law of Massachusetts, the barrel for Cider and Beer shall contain 32 gallons. Milk *should be sold* by Beer measure.

In 2 quarts, how many pints? In 4 quarts? In 8 quarts? In 12 quarts? In 16 quarts? In 24 quarts?

2. How many hogsheads in 1 butt? In 4 butts?

3. How much will 7 quarts of milk cost, at 5 cents a quart? What cost 8 quarts? 9 quarts? 10 quarts? 11 quarts? 12 quarts?

4. What cost 9 barrels of beer, at 4 dollars a barrel? What cost 8 barrels? 10 barrels? 11 barrels? 12 barrels?

5. Bought 4 gallons of milk, at 12 cents a gallon; what cost 1 gallon? 5 gallons? 6 gallons? 7 gallons? 9 gallons? 10 gallons? 12 gallons?

6. Sold 7 quarts of beer, at 9 cents a quart; what was the cost? What cost 8 quarts? 9 quarts? 10 quarts? 12 quarts?

7. Bought 9 quarts of milk for 54 cents; what was the cost of 1 quart? Of 2 quarts? Of 3 quarts? Of 4 quarts? Of 5 quarts? Of 7 quarts? Of 8 quarts? Of 12 quarts?

SECTION XXXVI.

Table of Dry Measure.

2 Pints	make	1 Quart,	marked	qt.
4 Quarts	"	1 Gallon,	"	gal.
2 Gallons	"	1 Peck,	"	pk.
4 Pecks	"	1 Bushel,	"	bu.
36 Bushels	"	1 Chaldron,	"	ch.

This measure is applied to all Dry Goods, as Corn, Fruit, Salt, Coals, &c. A Winchester bushel is 18½ inches diameter, and 8 inches deep.

1. How many pints in 1 quart? In 2 quarts? In 4 quarts? In 6 quarts? In 8 quarts? In 10 quarts?
2. How many quarts in 12 pints? In 18 pints? In 20 pints? In 24 pints? In 30 pints? In 40 pints?
3. How many pecks in 12 gallons? In 16 gallons? In 20 gallons? In 24 gallons? In 32 gallons? In 36 gallons? In 48 gallons?
4. How many gallons in 4 pecks? In 5 pecks? In 6 pecks?
5. In 2 bushels how many pecks? In 6 bushels? In 9 bushels?
6. How many pecks in 4 bushels? In 5 bushels? In 9 bushels?
7. In 6 pecks how many gallons? In 7 pecks? In 10 pecks? In 12 pecks?
8. How many pints in 1 gallon? In 2 gallons?
9. What cost 5 pecks of salt, at 12 cents a peck?

10. What cost 9 bushels of corn, at 4 shillings a bushel? What cost 7 bushels? 12 bushels?

11. What cost 12 quarts of cherries, at 8 cents a quart? At 9 cents? At 12 cents?

12. At 9 cents a pint, what cost 12 pints of cranberries? 8 pints? 7 pints? 3 pints?

SECTION XXXVII.

Table of Time.

60 Seconds, or 60″	make	1 Minute,	marked	m.
60 Minutes	"	1 Hour,	"	h.
24 Hours	"	1 Day,	"	d.
7 Days	"	1 Week,	"	w.
4 Weeks	"	1 Month,	"	mo.
52 Weeks	"	1 Year,	"	y.
12 Calendar Months	"	1 Year,	"	y.

The following table will exhibit the names of the months, and the number of days in each.

1st	month,	January,	has	31	days.
2d	"	February,	"	28	" { Except in Leap Year, when it has 29
3d	"	March,	"	31	"
4th	"	April,	"	30	"
5th	"	May,	"	31	"
6th	"	June,	"	30	"
7th	"	July,	"	31	"
8th	"	August,	"	31	"
9th	"	September,	"	30	"
10th	"	October,	"	31	"
11th	"	November,	"	30	"
12th	"	December,	"	31	"
				365	days.

March, April, and May, are the months of Spring; June, July, and August, are the months of Summer; September, October, and November, are the months of Autumn; and December, January, and February, are the Winter months.

The following distich will enable the pupil to remember the number of days in each month.

'Thirty days hath September,
April, June, and November;
All the rest have thirty-one,
Excepting February all alone,
Which hath twenty-eight in fine,
Except in leap year, twenty-nine.'

As there are 365 days 6 hours in a year, in four years there will be 24 hours, or one day overplus. This one day is added to February, which gives that month 29 days once in four years. This year is called bissextile, or leap year, and has 366 days.

1. How many weeks in 1 month? How many in 2 months? In 4 months? In 8 months? In 9 months? In 10 months? In 12 months?

2. How many days in a week? In 2 weeks? In 4 weeks? In 6 weeks? In 3 weeks? In 12 weeks?

3. How many days in 7 weeks? In 8 weeks? In 10 weeks? In 9 weeks? In 5 weeks? In 11 weeks?

4. In 14 days, how many weeks? In 21 days? In 42 days? In 49 days? In 63 days? In 84 days? In 56 days?

5. How many months in 12 weeks? In 16 weeks? In 24 weeks? In 36 weeks? In 48 weeks? In 96 weeks? In 132 weeks?

6. How many of the months have 31 days? Which are they?

7. How many of the months have 30 days? Which are they?

8. What month has 28 days? When has it 29 days?

9. If a man travel 9 miles in 18 hours, how far would he travel in 1 hour? In 7 hours? In 10 hours? In 12 hours?

SECTION XXXVIII.

Table of Circular Motion.

60 Seconds	make	1 Minute,	marked	′.
60 Minutes	"	1 Degree,	"	°.
30 Degrees	"	1 Sign,	"	s.

12 Signs, or 360 Degrees, the whole great Circle of the Zodiac.

1. How many seconds in 2 minutes? In 3 minutes? In 4 minutes?

2. How many seconds in 3 minutes and 1 second?

3. How many degrees in 2 signs? In 3 signs?

4. How many signs in 30 degrees? In 60 degrees? In 100 degrees? In 120 degrees?

SECTION XXXIX.

1. Bought a melon, which I equally divided among my three daughters; what part of the melon did each receive? Ans. Each received one third $= \frac{1}{3}$.

Note. — Wherever this mark = is used, the pupil may read *is equal to*, or *are equal to*. Thus 12 pence = 1 shilling, should be read, 12 pence are equal to 1 shilling.

2. If 2 melons had been equally divided among them, what part of a melon would each have received? Ans. Each would have received two thirds $= \frac{2}{3}$ of a melon; because each of them would have received as many thirds as there were melons divided among them.

3. If an orange were equally divided among 7 boys, what part of the orange would each receive? Ans. One seventh $= \frac{1}{7}$.

4. If 3 oranges were equally divided among 7 boys, what part of an orange would each receive? Ans. Three sevenths $= \frac{3}{7}$. Why?

5. If 4 oranges were equally divided among 7 boys, what part of an orange would each receive? If 5 oranges? If 6 oranges? If 7 oranges?

6. How many sevenths are there in 1 orange? How many sevenths in 2 oranges? In 5 oranges? In 8 oranges? In 9 oranges? In 10 oranges?

7. How many fifths are there in 2 apples? In 3 apples? In 6 apples? In 7 apples? In 9 apples?

8. If 3 apples were equally divided among 5 boys, how many fifths would each receive?

Illustration. As each apple has 5 fifths, 3 apples have 15 fifths $= \frac{15}{5}$; and one fifth of 15 is 3; therefore each boy would receive three fifths of an apple, written thus, $\frac{3}{5}$.

9. Divided 9 barrels of flour equally among 4 men: how many sixths of a barrel did each receive? How many ninths? How many twelfths? How many half-barrels did each receive?

10. Bought 4 bushels of apples, and paid for them in cherries, a quart of cherries being valued at a third of a bushel of apples; how many quarts of cherries were given for one bushel? How many for the 4 bushels? How many quarts of cherries must be given for 10 bushels?

11. Distributed 6 dollars equally among 4 poor persons; how many quarters of dollars did each receive? How many half quarters did each receive?

12. How many fourths are there in 4?

13. How many fourths in 4 and 1 fourth $= 4\frac{1}{4}$?

NOTE. — This number, $4\frac{1}{4}$, is called a mixed number; because it consists of a whole number, 4, and a fraction, $\frac{1}{4}$, and is read, four and one fourth.

14. How many fourths in 4 and 3 fourths $= 4\frac{3}{4}$?
15. How many fourths in 5?
16. How many fourths in 5 and 3 fourths $= 5\frac{3}{4}$?
17. How many sixths in 7? In 7 and 1 sixth $= 7\frac{1}{6}$? In 7 and 2 sixths? In 7 and 5 sixths?
18. Bought 5 and 3 fourths quarts of nuts, at 4 cents a quart; what did they cost?
19. How many ninths are there in 9 and 4 ninths $= 9\frac{4}{9}$? In 7 and 2 ninths $= 7\frac{2}{9}$? In 2 and 1 ninth $= 2\frac{1}{9}$? In 3 and 8 ninths $= 3\frac{8}{9}$? In 6 and 5 ninths $= 6\frac{5}{9}$?
20. How many fifths in 3? In 3 and 2 fifths $= 3\frac{2}{5}$? In 3 and 4 fifths $= 3\frac{4}{5}$? In 4 and three fifths $= 4\frac{3}{5}$? In 4 and 4 fifths $= 4\frac{4}{5}$?

SECTION XL.

1. If a man give half a dollar for a bushel of corn, what would be the price of 2 bushels?
2. How many halves make 1?
3. Gave one third of a dollar for a bushel of apples; what would be the cost of 3 bushels?
4. How many thirds make 1?
5. Paid John Smith one fifth of a dollar for a quart of nuts; what would he charge me for 5 quarts?
6. How many fifths make 1?
7. John Dow charged me one dollar for one seventh of a yard of his best broadcloth; what should I give him for 1 yard?
8. How many sevenths make 1?
9. If 7 sevenths make 1, how many will 8 sevenths make? Ans. 1 and 1 seventh $= 1\frac{1}{7}$.
10. How many will 10 sevenths make? Ans. 1 and 3 sevenths $= 1\frac{3}{7}$.
11. How many will 12 sevenths make?
12. How many will 14 sevenths make?

13. John has 19 quarters of dollars; how many whole dollars would they make?

14. How many quarters of dollars in 12 dollars? In 7 dollars? In 9 dollars? In 3 dollars?

15. How many dollars in 24 quarters? In 30 quarters?

16. How many dollars in 16 eighths of a dollar?

17. How many 1's, or whole numbers, in 12 fourths? Ans. 3 1's, or whole numbers; because 4 fourths make 1, and 12 fourths are 3 times as many as 4 fourths.

18. How many 1's in 15 fifths? In 20 fifths?

19. How many 1's in 12 sixths? In 24 sixths? In 30 sixths? In 42 sixths? In 60 sixths?

20. How many sixths make 1?

SECTION XLI.

1. How many are 4 times 3 fifths? Ans. 12 fifths.

2. How many 1's in 12 fifths? Ans. As 5 fifths make 1, 12 fifths will make as many 1's as 12 will contain 5; and 12 contains 5 twice and 2 fifths of 5 $= 2\frac{2}{5}$.

3. How many are 5 times 3 eighths?

4. How many 1's in 15 eighths $= \frac{15}{8}$.

NOTE. — This fraction, $\frac{15}{8}$, is called an improper fraction; because its numerator exceeds the denominator. Its value is obtained by finding the number of times the numerator contains the denominator; and, as 15 eighths contain 8 eighths once and 7 eighths, its value is $1\frac{7}{8}$.

5. How many are 7 times 5 ninths?

6. How many 1's in 35 ninths $= \frac{35}{9}$?

7. How many are 5 times 2 ninths?

8. How many 1's in 10 ninths $= \frac{10}{9}$?

9. How many are 4 times 7 eighths?

10. How many 1's in 28 eighths $= \frac{28}{8}$?
11. How many are 7 times 9 tenths?
12. How many 1's in 63 tenths $= \frac{63}{10}$?
13. How many are 8 times 7 fourths?
14. How many 1's in 56 fourths $= \frac{56}{4}$?
15. How many are 3 times 7 thirds?
16. How many 1's in 21 thirds $= \frac{21}{3}$?
17. How many are 9 times 3 elevenths?
18. How many 1's in 27 elevenths $= \frac{27}{11}$?
19. How many are 7 times 8 halves?
20. How many are 11 times 7 thirds?
21. How many are 8 times 3 sevenths?
22. How many are 5 times 7 thirds? 8 thirds? 9 thirds? 10 thirds? 11 thirds? 12 thirds?
23. How many 1's in 4 ninths? In 5 ninths? In 6 ninths? In 7 ninths? In 8 ninths? In 9 ninths? In 10 ninths? In 11 ninths?
24. How many are 10 times 1 half? 2 halves? 3 halves? 4 halves? 6 halves? 8 halves? 12 halves?
25. How many 1's in 10 halves? In 20 halves? In 30 halves? In 40 halves? In 50 halves? In 60 halves?
26. How many are 12 times 1 third? 2 thirds? 3 thirds? 4 thirds? 5 thirds? 6 thirds? 8 thirds? 12 thirds?

SECTION XLII.

1. What is $\frac{1}{3}$ of 2? Ans. $\frac{2}{3}$.

Illustration. If a pear be divided into 3 equal parts, one of these parts is a third $= \frac{1}{3}$; and if 2 pears be divided into 3 equal parts, 2 of these parts are two thirds $= \frac{2}{3}$. Hence $\frac{1}{3}$ of 2 is two thirds $= \frac{2}{3}$.

2. What is $\frac{1}{3}$ of 5? Ans. $\frac{5}{3} = 1\frac{2}{3}$.

Illustration. If a pear be divided into 5 equal parts, one of these parts is a fifth $= \frac{1}{5}$, and if 5 pears

be divided each into 3 equal parts, 5 of these parts are 5 thirds $= \frac{5}{3}$. As 3 thirds $= \frac{3}{3}$ make 1, 5 thirds will make 1 and 2 thirds $= 1\ \frac{2}{3}$.

3. What is $\frac{1}{3}$ of 7? Ans. $\frac{7}{3} = 2\frac{1}{3}$.

4. What is $\frac{1}{3}$ of 8? Of 9? Of 10? Of 11? Of 12?

5. What is $\frac{2}{3}$ of 7? Ans. $\frac{14}{3} = 4\frac{2}{3}$.

Illustration. Two thirds of 7 will be two times as many as one third of 7, and 1 third of 7 is 7 thirds; therefore 2 thirds of 7 will be 14 thirds $= \frac{14}{3}$. Then as 3 thirds make a unit or 1, 14 thirds will make as many units or 1's, as 14 will contain 3, and 14 contains 3, 4 times and 2 thirds $= 4\frac{2}{3}$.

6. What is $\frac{1}{4}$ of 5? Ans. $\frac{5}{4} = 1\frac{1}{4}$.

7. What is $\frac{1}{4}$ of 6? Of 7? Of 8? Of 9? Of 10? Of 11? Of 12? Of 14? Of 15? Of 16? Of 20? Of 24? Of 28?

8. What is $\frac{3}{4}$ of 7? Ans. $5\frac{1}{4}$.

Illustration. 1 fourth of 7 is $\frac{7}{4}$, and 3 fourths is 3 times as many, and 3 times 7 fourths are 21 fourths $= \frac{21}{4}$, and 21 fourths are $5\frac{1}{4}$.

9. How many are $\frac{3}{4}$ of 8? Of 9? Of 10? Of 11? Of 12? Of 13? Of 14? Of 15? Of 16? Of 18? Of 20? Of 24?

10. How many are $\frac{1}{5}$ of 4? Of 5? Of 6? Of 7? Of 8? Of 12? Of 9? Of 10? Of 11? Of 16? Of 17? Of 20? Of 30?

11. How many are $\frac{2}{5}$ of 3? Of 5? Of 7? Of 9? Of 10? Of 12? Of 16? Of 17? Of 18? Of 20? Of 24?

12. How many are $\frac{3}{5}$ of 7? Of 8? Of 9? Of 10? Of 11? Of 12? Of 15? Of 16? Of 17? Of 18? Of 19? Of 20?

13. How many are $\frac{4}{5}$ of 3? Of 4? Of 5? Of 7? Of 10? Of 12? Of 9? Of 11? Of 13? Of 15? Of 16? Of 18?

14. How many are $\frac{1}{6}$ of 7? Of 8? Of 9? Of

11? Of 12? Of 13? Of 14? Of 10? Of 15? Of 16? Of 20? Of 26?

15. How many are $\frac{5}{8}$ of 4? Of 5? Of 7? Of 8? Of 11? Of 12? Of 13? Of 15? Of 16? Of 17? Of 18? Of 20?

16. James and John bought a barrel of molasses, for which they paid 14 dollars; of this sum, James paid $\frac{3}{7}$, and John the remainder; what did each pay? Ans. James paid 6 dollars, and John paid 8 dollars.

Illustration. $\frac{1}{7}$ of 14 dollars is 2 dollars, and $\frac{3}{7}$ will be three times as many, and 3 times 2 dollars are 6 dollars, James's part; 14 less 6 are 8 dollars, John's part.

17. Two men, Ames and Johnson, make on a speculation 42 dollars; $\frac{4}{7}$ of this sum belonging to Ames, and the remainder to Johnson; how many dollars does each receive?

18. Gave 45 cents to Thomas and Samuel; Thomas is to have $\frac{5}{9}$ of them, and Samuel the remainder; how many does each receive?

19. James received $\frac{5}{7}$ of a certain number of marbles, his share being 25; Richard is to have the remainder, how many does he receive?

SECTION XLIII.

1. If a man eat $\frac{1}{3}$ of a pound of bread at a meal, how much would 2 men eat? Ans. $\frac{2}{3}$ of a pound.

Illustration. Two men would eat 2 times as much as one man, and 2 times 1 third are 2 thirds $= \frac{2}{3}$.

2. How much would 3 men eat? Ans. 3 thirds $= \frac{3}{3}$, or 1 pound.

3. If a horse eat $\frac{3}{7}$ of a bushel of oats in one week, how much would 2 horses eat? How much would 3 horses eat? 4 horses? 5 horses? 6 horses?

4. How many are 3 times 3 sevenths?

5. How many are 4 times $\frac{3}{7}$? $\frac{3}{5}$? $\frac{4}{5}$? $\frac{6}{7}$? $\frac{8}{11}$? $\frac{9}{10}$?
6. How many are 8 times $\frac{8}{7}$? $\frac{11}{7}$? $\frac{4}{9}$? $\frac{7}{8}$? $\frac{5}{12}$? $\frac{8}{11}$?
7. How many are 9 times $\frac{3}{7}$? $\frac{4}{11}$? $\frac{8}{9}$? $\frac{6}{7}$? $\frac{4}{11}$? $\frac{7}{13}$?
8. How many are 12 times $\frac{3}{7}$? $\frac{4}{11}$? $\frac{5}{6}$? $\frac{4}{5}$? $\frac{7}{8}$?
9. How many are 7 times $\frac{7}{11}$? $\frac{6}{7}$? $\frac{8}{9}$? $\frac{11}{12}$? $\frac{8}{11}$?
10. How many are 6 times $\frac{1}{2}$? $\frac{2}{3}$? $\frac{3}{4}$? $\frac{5}{6}$? $\frac{6}{7}$? $\frac{7}{8}$?
11. How many are 5 times $\frac{2}{5}$? $\frac{5}{6}$? $\frac{6}{11}$? $\frac{11}{12}$? $\frac{12}{13}$?
12. How many are 10 times $\frac{1}{2}$? $\frac{2}{3}$? $\frac{3}{4}$? $\frac{4}{5}$? $\frac{5}{6}$? $\frac{6}{7}$?

13. If a man travel $\frac{3}{5}$ of a mile in one hour, how far would he travel in 2 hours? In 5 hours? In 6 hours? In 7 hours? In 8 hours? In 9 hours? In 12 hours?

14. How many are 4 times $\frac{3}{5}$? 5 times $\frac{3}{5}$? 6 times $\frac{3}{5}$? 7 times $\frac{3}{5}$? 8 times $\frac{3}{5}$? 9 times $\frac{3}{5}$? 12 times $\frac{3}{5}$?

15. Gave $\frac{5}{8}$ of a dollar for a bushel of pears; what cost 3 bushels? 4 bushels? 6 bushels? 7 bushels? 8 bushels? 9 bushels? 12 bushels?

16. Ralph paid $\frac{1}{8}$ of a dollar for a pint of cherries; what cost 2 pints? 3 pints? 4 pints? 5 pints? 7 pints? 12 pints? 13 pints? 14 pints? 15 pints?

17. John Jones informs me, that his family consumes $\frac{3}{4}$ of a barrel of flour in one week; how much would they consume in 2 weeks? In 4 weeks? In 5 weeks? In 6 weeks? In 7 weeks? In 8 weeks? In 9 weeks? In 11 weeks? In 12 weeks? In 20 weeks?

18. Gave $\frac{1}{16}$ of a dollar for a peck of apples; what cost 2 pecks? 3 pecks? 4 pecks? 5 pecks? 6 pecks? 7 pecks? 8 pecks? 12 pecks? 15 pecks? 16 pecks?

19. Gave $\frac{7}{16}$ of a dollar for a bushel of cherries; what cost 3 bushels? 5 bushels? 7 bushels? 8 bushels? 12 bushels? 15 bushels? 20 bushels? 30 bushels?

20. Sold J. Pearson $\frac{3}{11}$ of a bushel of parsnips for one shilling; how many should he receive for 5 shillings? For 6 shillings? For 7 shillings? For 11 shillings?

21. A teacher gave $\frac{10}{8}$ of a dollar for 1 dozen of Mental Arithmetics; what should he give for 2 dozen? For 3 dozen? For 4 dozen? For $\frac{1}{2}$ of a dozen? For 6 dozen?

SECTION XLIV.

1. If a barrel of apples cost one dollar and one third of a dollar, what is the value of 2 barrels? Ans. Two times one dollar and two times one third of a dollar; that is, 2 dollars and 2 thirds of a dollar $= 2\frac{2}{3}$ dollars.

2. What would 5 barrels cost at $1\frac{1}{3}$ dollars per barrel? Ans. 5 dollars and 5 thirds of a dollar; but 5 thirds of a dollar are 1 dollar and 2 thirds of a dollar $= 1\frac{2}{3}$. And 5 dollars and $1\frac{2}{3}$ dollars are $6\frac{2}{3}$ dollars.

3. If a barrel of flour cost $5\frac{3}{8}$ dollars, what cost 2 barrels? 3 barrels? 4 barrels? 5 barrels? 10 barrels? 6 barrels? 7 barrels? 8 barrels? 9 barrels?

4. How many are 6 times $1\frac{1}{3}$? $3\frac{1}{3}$? $3\frac{3}{4}$? $4\frac{2}{7}$? $5\frac{1}{3}$? $5\frac{3}{7}$? $5\frac{1}{8}$? $6\frac{3}{4}$? $8\frac{1}{3}$? $8\frac{3}{7}$? $8\frac{4}{5}$? $7\frac{1}{3}$? $8\frac{1}{9}$? $9\frac{8}{9}$? $10\frac{3}{5}$? $11\frac{3}{7}$?

5. How many are 7 times $2\frac{3}{4}$? $3\frac{2}{3}$? $4\frac{3}{5}$? $5\frac{4}{7}$? $7\frac{1}{4}$? $8\frac{3}{11}$? $8\frac{7}{8}$? $9\frac{1}{3}$? $11\frac{1}{4}$? $4\frac{3}{7}$? $5\frac{3}{11}$? $6\frac{1}{7}$? $4\frac{1}{2}$? $12\frac{3}{7}$?

6. How many are 8 times $1\frac{7}{8}$? $2\frac{3}{4}$? $3\frac{4}{5}$? $4\frac{6}{7}$? $5\frac{3}{7}$? $6\frac{4}{9}$? $7\frac{1}{7}$? $3\frac{3}{7}$? $4\frac{1}{2}$? $6\frac{3}{7}$? $8\frac{3}{11}$? $7\frac{1}{3}$? $6\frac{3}{11}$? $7\frac{4}{11}$? $9\frac{1}{2}$?

7. How many are 9 times $1\frac{1}{4}$? $2\frac{4}{5}$? $3\frac{1}{6}$? $4\frac{4}{7}$? $8\frac{6}{11}$? $9\frac{1}{10}$? $10\frac{1}{3}$? $11\frac{1}{4}$? $6\frac{3}{7}$? $4\frac{2}{3}$? $7\frac{1}{9}$? $7\frac{1}{4}$? $6\frac{3}{7}$? $4\frac{3}{7}$? $9\frac{3}{5}$? $4\frac{7}{8}$?

8. Bought a peck of quinces for $6\frac{1}{4}$ cents; what cost 2 pecks? What cost 3 pecks? 5 pecks? 6 pecks? 7 pecks? 8 pecks? 9 pecks? 10 pecks? 11 pecks?

9. Paid $5\frac{3}{8}$ dollars to F. Johnson for one barrel of his extra superfine flour, what must I give for 2 barrels? For 3 barrels? For 4 barrels? For 5 barrels? For 6 barrels? For 7 barrels? For 8 barrels?

SECTION XLV.

1. Gave my youngest daughter Lydia $\frac{1}{8}$ of an orange, which she equally divided among 4 little girls;

what part of the orange did each girl receive? Ans. $\frac{1}{20}$?

Illustration. If an orange be divided into 5 equal parts, one of these parts is a fifth; and, if each of these fifths be divided into 4 other equal parts, the orange will then be divided into 20 equal parts, and one of these parts will be $\frac{1}{20}$ of the orange. Hence, each girl will receive $\frac{1}{20}$ of the orange.

2. What is $\frac{1}{3}$ of $\frac{1}{2}$? $\frac{1}{4}$ of $\frac{1}{3}$? $\frac{1}{6}$ of $\frac{1}{7}$? $\frac{1}{8}$ of $\frac{1}{9}$? $\frac{1}{2}$ of $\frac{1}{4}$?

3. What is $\frac{1}{5}$ of $\frac{1}{2}$? $\frac{1}{8}$ of $\frac{1}{3}$? $\frac{1}{7}$ of $\frac{1}{8}$? $\frac{1}{9}$ of $\frac{1}{4}$? $\frac{1}{4}$ of $\frac{1}{8}$? $\frac{1}{8}$ of $\frac{1}{9}$? $\frac{1}{7}$ of $\frac{1}{2}$? $\frac{1}{7}$ of $\frac{1}{11}$? $\frac{1}{6}$ of $\frac{1}{7}$? $\frac{1}{5}$ of $\frac{1}{4}$? $\frac{1}{7}$ of $\frac{1}{7}$? $\frac{1}{2}$ of $\frac{1}{10}$?

4. What is $\frac{1}{2}$ of $\frac{1}{5}$? $\frac{1}{2}$ of $\frac{1}{6}$? $\frac{1}{3}$ of $\frac{1}{7}$? $\frac{1}{3}$ of $\frac{1}{9}$? $\frac{1}{3}$ of $\frac{1}{4}$? $\frac{1}{4}$ of $\frac{1}{8}$? $\frac{1}{3}$ of $\frac{1}{3}$? $\frac{1}{4}$ of $\frac{1}{4}$? $\frac{1}{5}$ of $\frac{1}{4}$? $\frac{1}{7}$ of $\frac{1}{2}$? $\frac{1}{6}$ of $\frac{1}{7}$? $\frac{1}{9}$ of $\frac{1}{9}$?

5. A gentleman owned $\frac{7}{11}$ of an acre of land, and he gave $\frac{4}{5}$ of it to his oldest son; what part of an acre did his son receive? Ans. $\frac{28}{55}$ of an acre.

Illustration. If an acre be divided into 11 equal parts, one of these parts is $\frac{1}{11}$ of an acre. Again, if one of these elevenths be divided into 5 equal parts, one of these parts would be $\frac{1}{55}$ of an acre. And, if $\frac{1}{5}$ of $\frac{1}{11}$ be $\frac{1}{55}$, it is evident that $\frac{1}{5}$ of $\frac{7}{11}$ will be 7 times as much; and 7 times $\frac{1}{55}$ are $\frac{7}{55}$; and, if $\frac{1}{5}$ of $\frac{7}{11}$ be $\frac{7}{55}$, 4 fifths will be 4 times as much; and 4 times $\frac{7}{55}$ are $\frac{28}{55} = \frac{7}{11}$. His son will therefore have $\frac{28}{55}$ of an acre.

6. What is $\frac{2}{3}$ of $\frac{1}{2}$? $\frac{2}{3}$ of $\frac{7}{8}$? $\frac{3}{7}$ of $\frac{1}{9}$? $\frac{3}{8}$ of $\frac{5}{6}$? $\frac{4}{9}$ of $\frac{3}{7}$?

7. What is $\frac{3}{4}$ of $\frac{5}{6}$? $\frac{7}{8}$ of $\frac{9}{10}$? $\frac{2}{9}$ of $\frac{3}{4}$? $\frac{7}{8}$ of $\frac{3}{4}$? $\frac{6}{7}$ of $\frac{2}{5}$?

8. What is $\frac{7}{11}$ of $\frac{1}{5}$? $\frac{8}{9}$ of $\frac{1}{2}$? $\frac{3}{5}$ of $\frac{1}{7}$? $\frac{4}{7}$ of $\frac{7}{8}$? $\frac{8}{9}$ of $\frac{2}{7}$?

9. John has a quarter of a dollar, and he gives one quarter of it to James; what part of the dollar does James receive, and what part does John retain?

10. A lady bought one quart of milk; she gave a pint of it to a boy; what part of a gallon had she left?

SECTION XLVI.

1. John Jones distributed $\frac{3}{4}$ of a barrel of flour equally among 5 poor persons; what part of a barrel did each receive? Ans. $\frac{3}{20}$ of a barrel.

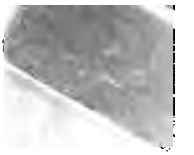
Illustration. If $\frac{1}{4}$ of a barrel be divided equally into 5 parts, one of these parts is $\frac{1}{20}$, and each person will receive $\frac{1}{20}$ of a barrel; but as there were $\frac{3}{4}$ of a barrel, each person received 3 times as much, and 3 times $\frac{1}{20}$ are $\frac{3}{20}$. Therefore each poor person would receive $\frac{3}{20}$ of a barrel of flour.

2. Divided $\frac{5}{8}$ of a dollar equally among 7 boys; what part of a dollar did each boy receive?

3. Mr. Wilcox distributed among 8 of his good arithmeticians $\frac{3}{11}$ of a bushel of plums; what part of a bushel did each receive?

4. What part of 9 is $\frac{3}{4}$? Is $\frac{4}{5}$? Is $\frac{5}{6}$? Is $\frac{6}{7}$?
5. What part of 11 is $\frac{2}{7}$? Is $\frac{1}{2}$? Is $\frac{2}{5}$? Is $\frac{7}{8}$?
6. What part of 5 is $\frac{3}{10}$? Is $\frac{4}{5}$? Is $\frac{3}{7}$? Is $\frac{4}{7}$?
7. What part of 7 is $\frac{2}{5}$? Is $\frac{4}{5}$? Is $\frac{3}{7}$? Is $\frac{4}{7}$?
8. What part of 8 is $\frac{2}{7}$? Is $\frac{3}{7}$? Is $\frac{4}{9}$? Is $\frac{6}{11}$?
9. What part of 3 is $\frac{2}{11}$? Is $\frac{4}{5}$? Is $\frac{7}{8}$? Is $\frac{9}{10}$?
10. What part of 1 is $\frac{1}{2}$? Is $\frac{1}{3}$? Is $\frac{2}{3}$? Is $\frac{4}{3}$?
11. What part of 6 is $\frac{1}{4}$? Is $\frac{1}{3}$? Is $\frac{3}{4}$? Is $\frac{1}{5}$?
12. What part of 2 is $\frac{3}{7}$? Is $\frac{5}{3}$? Is $\frac{4}{11}$? Is $1\frac{1}{4}$?
13. What part of 7 is $\frac{2}{4}$ of 12?
14. What part of 8 is $\frac{1}{3}$ of 7?
15. What part of 11 is $\frac{2}{5}$ of 8?
16. What part of 10 is $\frac{7}{8}$ of 5?
17. A man bought 5 bushels of oats, but a hungry horse ate 9 quarts of them; what part of the whole remains?

END.



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